AutoDome Easy II IP

VEZ Series

BOSCH

en Installation Manual

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1 Safety

1.1 Important Safety Instructions

Read, follow, and retain for future reference all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operating the unit.

1. **Cleaning -** Unplug the unit from the outlet before cleaning. Follow any instructions provided with the unit. It is generally sufficient to use a dry cloth for cleaning, but a moist lint-free cloth or leather shammy may also be used. Do not use liquid cleaners or aerosol cleaners.
2. **Heat sources -** Do not install the unit near any heat sources such as radiators, heaters, stoves, or other devices (including amplifiers) that produce heat.
3. **Ventilation -** Any openings in the unit housing are provided for ventilation to prevent overheating and ensure reliable operation. Do not block or cover these openings. Do not place the unit in an enclosure unless proper ventilation is provided, or the manufacturer's instructions have been adhered to.
4. **Water -** Do not use this unit near water, for example near a bathtub, washbowl, sink, laundry basket, in a damp or wet basement, near a swimming pool, or in any area classified as a wet location. To reduce the risk of fire or electrical shock, do not expose this unit to rain or moisture.
5. **Object and liquid entry -** Never push objects of any kind into this unit through openings, as they may touch dangerous voltage points or short out parts, which could result in a fire or electrical shock. Never spill liquid of any kind on the unit. Do not place objects filled with liquids, such as vases or cups, on the unit.
6. **Lightning -** For added protection during a lightning storm, or when leaving this unit unattended and unused for long periods, unplug the unit from the wall outlet and disconnect the cable system. This will prevent damage to the unit from lightning and power line surges.

7. **Control adjustment -** Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may cause damage to the unit. Use of controls or adjustments, or performance of procedures other than those specified, may result in hazardous radiation exposure.
8. **Overloading -** Do not overload outlets and extension cords. This can cause fire or electrical shock.
9. **Power disconnect -** Units with or without ON/OFF switches have power supplied whenever the power cord is inserted into the power source; however, the unit is operational only when the ON/OFF switch is in the ON position. The power cord is the main power disconnect device for switching off the voltage for all units.
10. **Power sources -** Operate the unit only via the type of power source indicated on the label. Before proceeding, be sure to disconnect the power from the cable being connected to the unit.
    - For battery powered units, refer to the operating instructions.
    - For units supplied by an external power source, use only the recommended or approved power supplies.
    - For limited power source units, this power source must comply with *EN60950*. Substitutions may damage the unit or cause fire or shock.
    - For 24 VAC units, voltage applied to the unit's power input should not exceed +/- 10% or 21.6-26.4 VAC. User-supplied wiring must comply with local electrical codes (Class 2 power levels). Do not ground the supply at the terminals or at the unit's power supply terminals.
    - If unsure of the type of power supply to use, contact your dealer or local power company.
11. **Servicing -** Do not attempt to service this unit yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

12. **Damage requiring service -** Unplug the unit from the main AC power source and refer servicing to qualified service personnel when any damage to the equipment has occurred, for example if:
    - the power supply cord or plug is damaged
    - exposure to moisture, water, and/or inclement weather (rain, snow etc.)
    - liquid has been spilled in or on the equipment
    - an object has fallen into the unit
    - the unit has been dropped or the unit cabinet is damaged
    - the unit exhibits a distinct change in performance
    - the unit does not operate normally when the user correctly follows the operating instructions.
13. **Replacement parts -** Be sure the service technician uses replacement parts specified by the manufacturer, or that they have the same characteristics as the original parts. Unauthorized substitutions may cause fire, electrical shock, or other hazards.
14. **Safety check -** Safety checks should be performed on completion of service or repairs to the unit, to ensure that the unit is in proper operating condition.
15. **Installation -** Install in accordance with the manufacturer's instructions and in accordance with applicable local codes.
16. **Attachments, changes, or modifications -** Only use attachments/accessories specified by the manufacturer. Any change to or modification of the equipment not expressly approved by Bosch could void the warranty or, in the case of an authorization agreement, authority to operate the equipment.

1.2 Safety Precautions

DANGER!
This symbol indicates an imminently hazardous situation such as “Dangerous Voltage” inside the product. If not avoided, this will result in an electrical shock, serious bodily injury, or death.

WARNING!
Indicates a potentially hazardous situation. If not avoided, this may result in minor or moderate injury. Alerts the user to important instructions accompanying the unit.

CAUTION!
Indicates a potentially hazardous situation. If not avoided, this may result in damage to property or risk of damage to the unit.

NOTICE!
This symbol indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.

1.3 Important Notices

Accessories - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to persons and/or severe damage to the unit. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer. When a cart is used, exercise caution and care when moving the cart/apparatus combination to avoid tipping it over, which could result in injury. Quick stops, excessive force, or uneven surfaces may cause the cart/unit combination to overturn. Mount the unit in line with the manufacturer's instructions.

All-pole power switch - Incorporate an all-pole power switch, with a contact separation of at least 3 mm in each pole, into the electrical installation of the building. If it is needed to open the housing for servicing and/or other activities, use this all-pole

switch as the main disconnect device for switching off the voltage to the unit.

Camera grounding - When mounting the camera in potentially damp environments, ensure the system is grounded through the metal housing of the unit (see section: Connecting the Power).

Camera signal - Protect the cable with a primary protector if the camera signal is over 140 feet, in accordance with *NEC800 (CEC Section 60)*.

Coax grounding:

- Ground the cable system if connecting an outside cable system to the unit.
- Connect outdoor equipment to the unit's inputs only after this unit has had its grounding plug connected to a grounded outlet or its ground terminal is properly connected to a ground source.
- Disconnect the unit's input connectors from outdoor equipment before disconnecting the grounding plug or grounding terminal.
- Follow proper safety precautions, such as grounding, for any outdoor device connected to this unit.

U.S.A. models only - *Section 810* of the *National Electrical Code, ANSI/NFPA No. 70*, provides information regarding proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Your Bosch product was developed and manufactured with high-quality material and components that can be recycled and reused. This symbol means that electronic and electrical appliances that have reached the end of their service life must be collected and disposed of separately from household waste material. Separate collecting systems are usually in place for disused electronic and electrical products. Please dispose of these units at an environmentally compatible recycling facility, in line with *European Directive 2002/96/EC*.

Environmental statement - Bosch has a strong commitment to the environment. This unit has been designed to respect the environment as much as possible.

Electrostatic-sensitive device - Take proper CMOS/MOS-FET handling precautions to avoid electrostatic discharge.
NOTE: You must wear grounded wrist straps and observe proper ESD safety precautions when handling the electrostatic-sensitive printed circuit boards.

Fuse rating - For security protection of the device, the branch circuit protection must be secured with a maximum fuse rating of 16 A. This must be in accordance with *NEC800 (CEC Section 60)*.

Grounding and polarization - This unit may be fitted with a polarized alternating current line plug (a plug with one blade wider than the other blade). This safety feature allows the plug to fit into the power outlet in only one way. If unable to insert the plug fully into the outlet, contact a locally certified electrician to replace the obsolete outlet. Do not defeat the safety purpose of the polarized plug.
Alternatively, this unit may be fitted with a 3-pole grounding plug (a plug with a third pin for earth grounding). This safety feature allows the plug to fit into a grounded power outlet only. If unable to insert the plug into the outlet, contact a locally certified electrician to replace the obsolete outlet. Do not defeat the safety purpose of the grounding plug.

Outdoor signals - The installation for outdoor signals, especially regarding clearance from power and lightning conductors and transient protection, must be in accordance with *NEC725* and *NEC800 (CEC Rule 16-224* and *CEC Section 60)*.

Moving - Disconnect the power before moving the unit. Move the unit with care.

PoE (Indoor models only) - Never supply power via the Ethernet connection (PoE) when power is already supplied via the power connector nor to an outdoor model.

Permanently connected equipment - Incorporate a readily accessible disconnect device in the building installation wiring. Pluggable equipment - Install the socket outlet near the equipment so it is easily accessible.

Power disconnect - Units have power supplied whenever the power cord is inserted into the power source. The power cord is the main power disconnect for all units.

Power lines - Do not locate the camera near overhead power lines, power circuits, electrical lights, or anywhere where it might come into contact with power lines, circuits, or lights.

SELV

All the input/output ports are Safety Extra Low Voltage (SELV) circuits. SELV circuits should only be connected to other SELV circuits.

Because the ISDN circuits are treated like telephone-network voltage, avoid connecting the SELV circuit to the Telephone Network Voltage (TNV) circuits.

Video loss - Video loss is inherent to digital video recording; therefore, Bosch Security Systems cannot be held liable for any damage that results from missing video information. To minimize the risk of lost digital information, Bosch Security Systems recommends multiple, redundant recording systems, and a procedure to back up all analog and digital information.

NOTICE! This is a class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC & ICES INFORMATION

(U.S.A. and Canadian Models Only)

This device complies with *part 15* of the *FCC Rules*. Operation is subject to the following conditions:

– this device may not cause harmful interference, and
– this device must accept any interference received, including interference that may cause undesired operation.

Note

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules and ICES-003 of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and radiates radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his expense.

Intentional or unintentional modifications not expressly approved by the party responsible for compliance shall not be made. Any such modifications could void the user's authority to operate the equipment. If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: How to Identify and Resolve Radio-TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

INFORMATIONS FCC ET ICES

(modèles utilisés aux États-Unis et au Canada uniquement)

Ce produit est conforme aux normes FCC partie 15. La mise en service est soumises aux deux conditions suivantes:

– cet appareil ne peut pas provoquer d'interférence nuisible et
– cet appareil doit pouvoir tolérer toutes les interférences auxquelles il est soumit, y compris les interférences qui pourraient influer sur son bon fonctionnement.

AVERTISSEMENT: Suite à différents tests, cet appareil s'est révélé conforme aux exigences imposées aux appareils numériques de Classe A en vertu de la section 15 du règlement de la Commission fédérale des communications des États-Unis (FCC). Ces contraintes sont destinées à fournir une protection raisonnable contre les interférences nuisibles quand l'appareil est utilisé dans une installation commerciale. Cette appareil génère, utilise et émet de l'energie de fréquence radio, et peut, en cas d'installation ou d'utilisation non conforme aux instructions, générer des interférences nuisibles aux communications radio. L'utilisation de ce produit dans une zone résidentielle peut provoquer des interférences nuisibles. Le cas échéant, l'utilisateur devra remédier à ces interférences à ses propres frais.

Au besoin, l'utilisateur consultera son revendeur ou un technicien qualifié en radio/télévision, qui procédera à une opération corrective. La brochure suivante, publiée par la Commission fédérale des communications (FCC), peut s'avérer utile : « How to Identify and Resolve Radio-TV Interference Problems » (Comment identifier et résoudre les problèmes d'interférences de radio et de télévision). Cette brochure est disponible auprès du U.S. Government Printing Office, Washington, DC 20402, États-Unis, sous la référence n° 004-000-00345-4.

AVERTISSEMENT: Ce produit est un appareil de Classe A. Son utilisation dans une zone résidentielle risque de provoquer des interférences. Le cas échéant, l'utilisateur devra prendre les mesures nécessaires pour y remédier.

Disclaimer

Underwriter Laboratories Inc. (“UL”) has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested fire, shock and/or casualty hazards as outlined in UL's *Standard(s) for Safety for Information Technology Equipment, UL/IEC 60950-1*. UL Certification does not cover the performance or reliability of the security or signaling aspects of this product.
UL MAKES NO REPRESENTATIONS, WARRANTIES, OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING-RELATED FUNCTIONS OF THIS PRODUCT.

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NOTICE!

This user guide has been compiled with great care and the information it contains has been thoroughly verified. The text was complete and correct at the time of printing. The ongoing development of the products may mean that the content of the user guide can change without notice. Bosch Security Systems accepts no liability for damage resulting directly or indirectly from faults, incompleteness or discrepancies between the user guide and the product described.

1.4 Customer Support and Service

If this unit needs service, contact the nearest Bosch Security Systems Service Center for authorization to return and shipping instructions.

Service Centers

USA

Repair Center

Telephone: 800-566-2283

Fax: 800-366-1329

E-mail: repair@us.bosch.com

Customer Service

Telephone: 888-289-0096

Fax: 585-223-9180

E-mail: security.sales@us.bosch.com

Technical Support

Telephone: 800-326-1450

Fax: 585-223-3508 or 717-735-6560

E-mail: technical.support@us.bosch.com

Canada

Telephone: 514-738-2434

Fax: 514-738-8480

Europe, Middle East, Africa Region

Repair Center

Telephone: 31 (0) 76-5721500

Fax: 31 (0) 76-5721413

E-mail: RMADesk.STService@nl.bosch.com

Asia Region

Repair Center

Telephone: 65 63522776

Fax: 65 63521776

E-mail: rmahelpdesk@sg.bosch.com

Warranty and additional information

For additional information and warranty queries, please contact your Bosch Security Systems representative or visit our website at www.boschsecurity.com.

2 Unpacking

This equipment should be unpacked and handled with care. If an item appears to have been damaged in shipment, notify the shipper immediately. Verify that all the parts listed in *Section 2.1 Parts List* are included. If any items are missing, notify your Bosch Security Systems Sales or Customer Service Representative.

The original packing carton is the safest container in which to transport the unit and must be used if returning the unit for service. Save it for possible future use.

2.1 Parts List

The AutoDome Easy II IP includes the following components:

- One (1) PTZ Dome (Dome camera)
- One (1) accessory kit including
  - One (1) 2-wire camera power cable, red and black wires
  - One (1) 2-wire heater power cable, white/red and white/black wires (outdoor models only)
  - One (1) 4-wire alarm in/out cable
- One (1) mounting bracket
- One (1) outdoor installation kit (outdoor models only)
- One (1) user manual

2.2 Safety Rules

To ensure safety, the following warnings are specified:

- The device must be installed and maintained by skilled technical personnel.
- Connect the device to a power source corresponding to the indications given on the marking label.
- Use only the attachments/accessories specified by the manufacturer.
- Unplug the device during lightning storms or when unused for long periods of time.
- Do not use the device near water (indoor models only).
- Do not use the device in the presence of flammable substances.
- Do not allow children or unauthorized personnel to use the device.
- Do not block any ventilation openings.
- Keep this manual for future reference.

3 Description

The AutoDome Easy II is part of a larger building block for any surveillance/security system. By using multiple keyboard controllers and multiple dome cameras, no place is too large for monitoring. Extensible and flexible architecture facilities remote control functions for a variety of external switching devices such as multiplexers and DVRs.

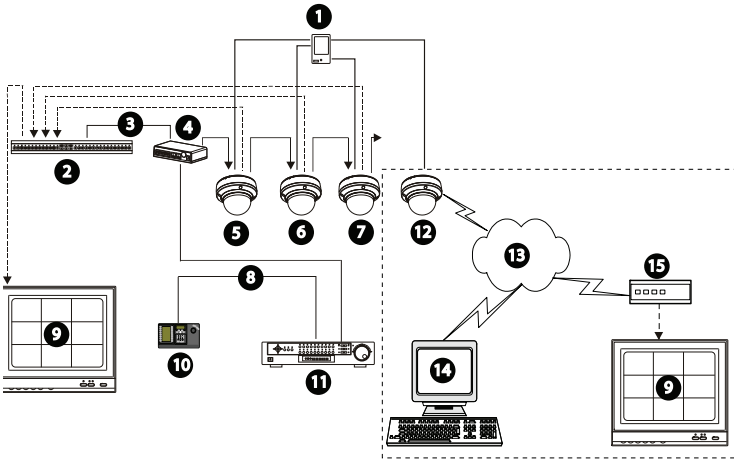


Figure 3.1 System Configuration

1	Alarm Input (sensor)		12	AutoDome Easy II IP
2	Multiplexer		13	Network
3	RS-485 Cable		14	Computer
4	Junction Box		15	Encoder/Decoder
5	AutoDome Easy II			
6	AutoDome Easy II			
7	AutoDome Easy II			
8	RS-485 Cable			
9	Monitor			
10	Keyboard			
11	DVR			

Refer to *Section 11 Using the AutoDome Easy II IP, page 74* for software and infrastructure requirements for an AutoDome Easy II IP installation.
This installation should be made by qualified service personnel and conform to the National Electrical Code and applicable local codes.

NOTICE!
A grounded conduit is required in order to meet the EMC Regulation Requirements.

4 Installing a Surface Mount

4.1 Description

This chapter details how to mount the AutoDome Easy II to a hard surface. The AutoDome Easy II is also suitable for wall (*Section 5 Installing a Wall Mount, page 33*), recess (*Section 6 Installing a Recessed Mount, page 44*), and pipe mounting (*Section 7 Installing a Pipe Mount, page 52*). For specific directions on mounting the unit, see the manual that came with your mount.

For an outdoor installation you must obtain the Surface Mount Junction Box (VEZ-A2-JC or VEZ-A2-JW) and the gaskets and O-rings supplied with an AutoDome Easy II Outdoor Camera to ensure a water-tight environment inside the unit and to maintain an IP Environmental Protection Rating. Refer to *Section 4.1.3 Preparing the Surface Mount for an Outdoor Installation, page 25*, to start an outdoor installation.

NOTICE!

The image sensors in modern CCD cameras are highly sensitive and require special care for proper performance and extended lifetime. Follow the guidelines for optimum results with your camera:

- Do not expose to direct sunlight or bright spotlights in operating and nonoperating conditions.
- Avoid bright lights in the field of view of the camera. Bright lights cause a “smearing” effect, which is visible as white lines above and below the highlight. Prolonged exposure to bright lights may cause bleaching of the sensor's color filters. This will be visible as colored spots in the picture and is irreversible.

4.1.1 Additional Tools Required

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- Appropriate tool for cutting a hole in drywall or ceiling tile (if applicable)
- 4 in. x 4 in. Junction box with 90 mm (3.54 in.) mount holes (indoor installation)
- Four (4) M4 or #10 pan head screws of an appropriate length to screw deep enough into the surface (outdoor installation)
- One (1) ground
- T-10 Torx wrench
- VEZ-A2-JW or VEZ-A2-JC Surface Mount Junction Box, required for an outdoor installation
- AutoDome Easy II Outdoor Camera, required for an outdoor installation

4.1.2 Preparing the Surface Mount for an Indoor Installation

The following instructions detail the preparation necessary to prepare the surface and the steps to install a Surface Mount.

1. Determine a secure location for the surface mount dome.

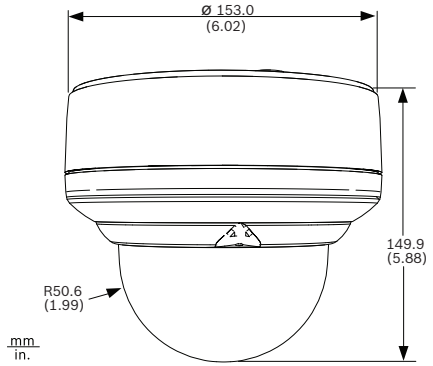


Figure 4.1 Indoor Surface Mount Dimensions

2. Install a 4 in. gang box or square metal junction box (not supplied). Ensure junction box and mounting screws are capable of supporting a maximum load of 11.33 kg (25 pounds).

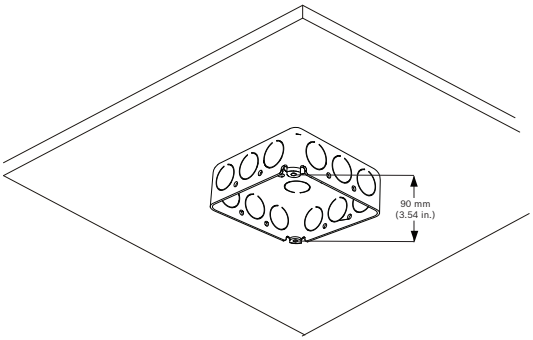


Figure 4.2 Install User-supplied Junction Box

3. Secure the mounting plate to the junction box with the user supplied hardware (see *Figure 4.3*).

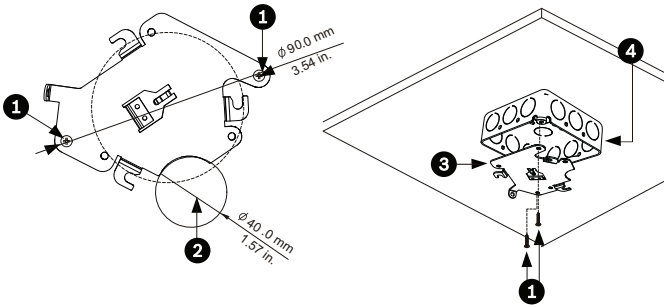


Figure 4.3 Install the Mounting Plate

1	Junction Box Holes
2	Cable Hole (40 mm maximum); Crescent Shape
3	Mounting Plate
4	Junction Box

4. Skip to *Section 4.1.4 Installing the Camera to the Mounting Plate, page 29*, to continue the installation.

4.1.3 Preparing the Surface Mount for an Outdoor Installation

The following instructions detail the preparation necessary to prepare the surface and the steps to install the Surface Mount Junction Box for an outdoor application.

1. Determine a secure location for the surface mount and the dome. The illustration below shows the placement of the surface mount (item 1, below) and the dome (item 2).

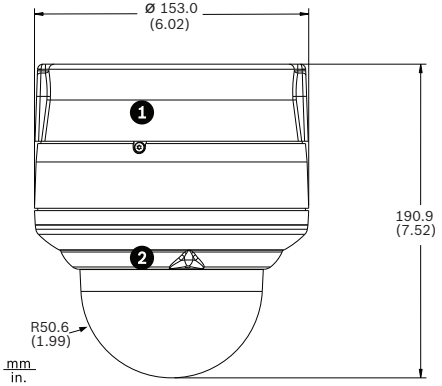


Figure 4.4 Outdoor Surface Mount with AutoDome Easy II

2. Use the VEZ-A2-JC or VEZ-A2-JW Surface Mount Junction Box as a template to mark the location of the four (4) M4 or #10 pan head screws (Item 1, below).

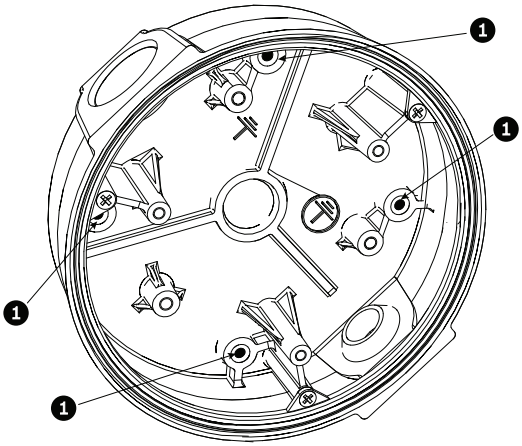
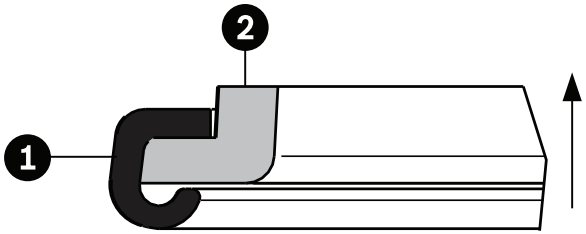


Figure 4.5 Location of M4 or #10 pan head screws

3. Drill the four (4) holes in the installation location. Use a minimum screw length of 10 mm (.39 in.).
4. Prepare the surface so that it can support a maximum load of 11.33 kg (25 lbs).
5. Thread the four (4) 3.97 mm I.D. by Ø1.78 mm O-rings (Item 3, *Figure 4.6*) onto the four (4) M4 or #10 user-supplied pan head screws. The O-rings are supplied with the AutoDome Easy II Outdoor Camera.
6. Ensure that the gasket is attached to the retaining ring. If the gasket and the retaining ring are separate:
   a. Locate the flat side of the gasket and the recessed side of the retaining ring.
   b. Thread the flat side of the gasket (item 1, below) onto the recessed side of the retaining ring (item 2). The illustration below shows a cross-section of the gasket on the retaining ring.



CAUTION!
You must ensure that the gasket is attached to the retaining ring as shown above to ensure an environmentally tight seal.

7. Attach the retaining ring with gasket (item 2, below) to the Surface Mount Junction Box. These parts are supplied with the AutoDome Easy II Outdoor Camera. Ensure that the side of the retaining ring with the counter-sunk screw holes is facing you.

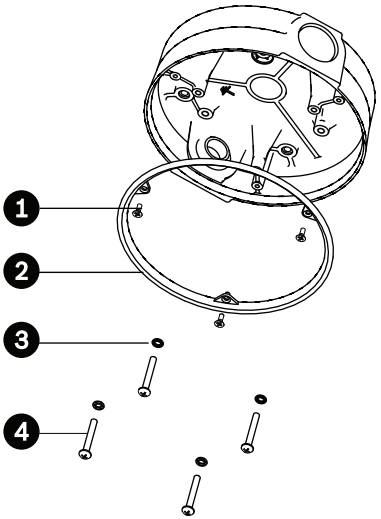


Figure 4.6 O-ring and retaining ring for outdoor installation

1	M3 – .5 x 6 Phillips flat head machine screws (supplied with AutoDome Easy II Outdoor Camera)
2	Retaining ring with gasket (supplied with AutoDome Easy II Outdoor Camera)
3	O-ring, 3.97 mm I.D. by Ø1.78 mm (supplied with AutoDome Easy II Outdoor Camera)
4	User-supplied M4 or #10 pan head screws

8. Determine the side of the Surface Mount Junction box in which the external wires are to be routed and remove the plug from the knockout.
9. Apply a 1/2-inch (15-mm) NPS fitting to the chosen knockout. Ensure a water-tight fitting to maintain the IP Environmental Protection Rating for the unit.

10. Attach the Surface Mount Junction Box to the surface using four (4) user-supplied M4 or #10 pan head screws (screws not supplied). Use a minimum screw length of 10 mm (.39 in.).
    Note: For an outdoor installation ensure that the four (4) 3.97 mm I.D. by Ø1.78 mm O-rings are threaded onto the four (4) M4 or #10 user-supplied pan head screws. Refer to step 5.

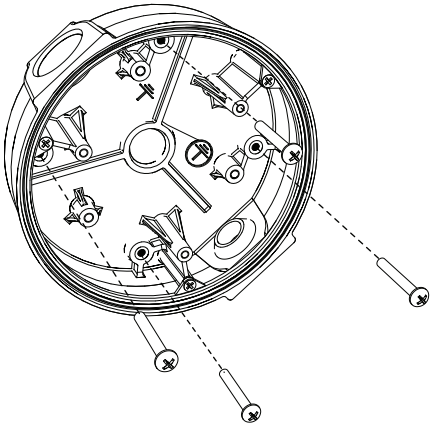


Figure 4.7 Attach surface mount to ceiling

11. Route the external wires through the conduit and into the Surface Mount Junction Box.

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

12. Secure the mounting plate to the Surface Mount Junction Box with the three (3) M4 – .7 x 8 Phillips pan head machine screws.

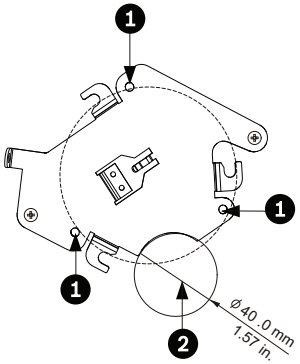


Figure 4.8 Install the Mounting Plate

1	Junction Box Holes
2	Cable Hole (40 mm maximum); Crescent Shape

13. Skip to *Section 4.1.4 Installing the Camera to the Mounting Plate, page 29*, to continue the installation.

4.1.4 Installing the Camera to the Mounting Plate

To install the camera to the mounting plate for a surface or suspended ceiling, do the following (certain steps contain additional information for outdoor installations):

1. Route wires on side of mounting plate with crescent shaped cut-out (Ref. #2 *Figure 4.3*).
2. Attach grounding wire from unit to junction box.
3. Attach user supplied ground to junction box.
4. Connect the mating connectors with the flying leads to the user supplied wiring (see *Section 8 Preparing the Wiring, page 63* for wiring information).

5. Unlock the single safety locking screw on the base of the unit using the user-supplied Allen wrench.

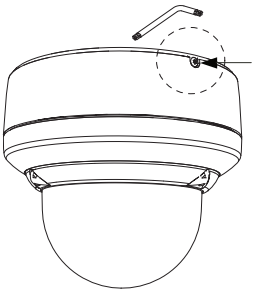


Figure 4.9 Unlock Safety Locking Screw

6. Plug the matching connectors from the camera into the mating connectors from the ceiling.

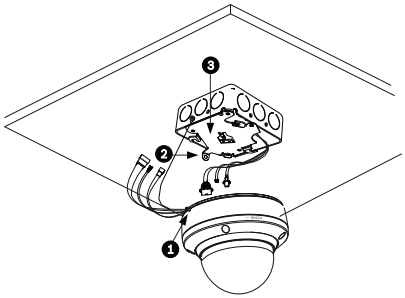


Figure 4.10 Connect Cables

1	Locking Screw
2	Vertical Tab
3	Mounting Plate

7. Align wires on side of mounting plate with crescent shaped cut-out.

8. Attach the camera to the mounting plate by inserting the vertical tab into the recessed slot on the top of the camera dome to the right of the safety locking screw.

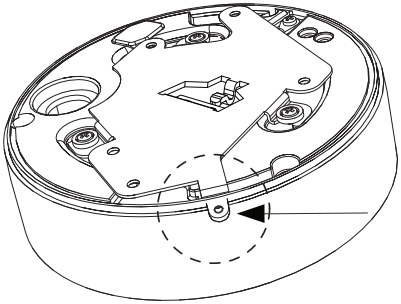


Figure 4.11 Attach Safety Locking Screw

9. Rotate the camera approximately 15 degrees to the right and lock firmly into place, as shown in the next illustration. Note: Do not loosen brass mounting buttons.

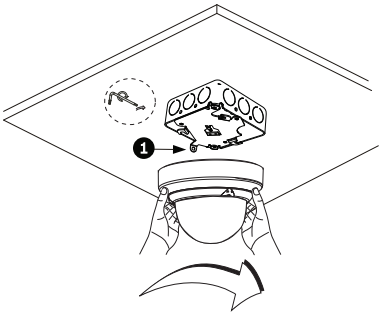
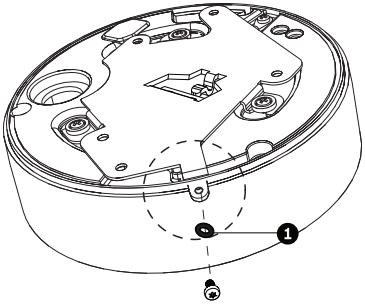


Figure 4.12 Attach Dome to Mounting Plate

1	Vertical tab

10. **Outdoor Installation**: Thread the 2.89 mm I.D. by Ø1.78 mm O-ring (item 1, below) onto the Safety Screw.



11. Secure the safety locking screw with the user supplied locking torx wrench (T-10).

5 Installing a Wall Mount

5.1 Description

This chapter details how to mount the AutoDome Easy II to a wall. The AutoDome Easy II is also suitable for surface (*Section 4 Installing a Surface Mount, page 22*), recess (*Section 6 Installing a Recessed Mount, page 44*), and pipe mounting (*Section 7 Installing a Pipe Mount, page 52*). For specific directions on mounting the unit, see the manual that came with your mount.

For an outdoor installation you must obtain the gaskets and O-rings supplied with an AutoDome Easy II Outdoor Camera to ensure a water-tight environment inside the unit and to maintain an IP Environmental Protection Rating. Refer to *Section 5.1.3 Preparing the Wall Mount for an Outdoor Installation, page 36*, to start an outdoor installation.

NOTICE!

The image sensors in modern CCD cameras are highly sensitive and require special care for proper performance and extended lifetime. Follow the guidelines for optimum results with your camera:

- Do not expose to direct sunlight or bright spotlights in operating and nonoperating conditions.
- Avoid bright lights in the field of view of the camera. Bright lights cause a “smearing” effect, which is visible as white lines above and below the highlight. Prolonged exposure to bright lights may cause bleaching of the sensor's color filters. This will be visible as colored spots in the picture and is irreversible.

5.1.1 Additional Tools Required

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- Appropriate tool for cutting a hole in drywall or ceiling tile (if applicable)
- T-10 Torx wrench
- AutoDome Easy II Outdoor Camera, required for an outdoor installation

5.1.2 Preparing the Wall Mount for an Indoor Installation

Use the following instructions To mount to an indoor wall. To use the Wall Mount in an outdoor application refer to *Section 5.1.3 Preparing the Wall Mount for an Outdoor Installation, page 36*.

1. Determine a secure location for the wall mount (supplied separately).

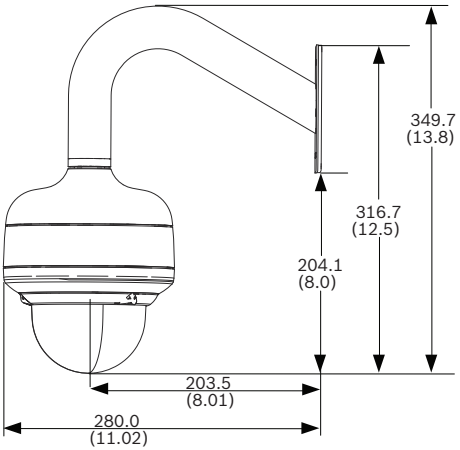


Figure 5.1 Wall Mount Dimensions

2. Fit a user-provided metal single-gang junction box to the wall.

3. Attach a grounded metal conduit to the junction box clamp.

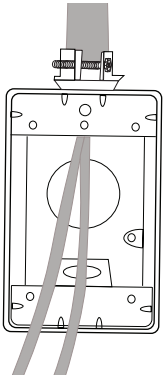


Figure 5.2 Metal Conduit

4. Feed the wires through the conduit.
5. Feed all wires from the metal junction box through the arm.
6. Attach the mounting cap to the arm.
7. Fit the arm to a metal single-gang junction box.

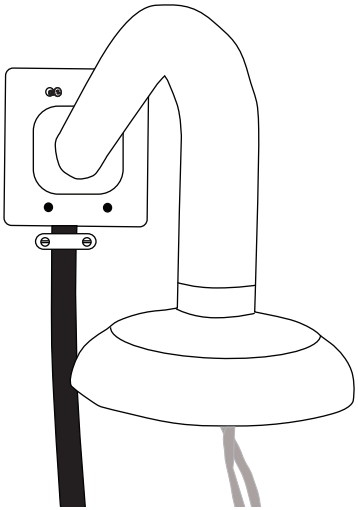


Figure 5.3 Fit to Gang Junction Box

8. Secure with the appropriate user-provided SEMS screws that have an integral lock washer to dig through the paint and ensure an electrical ground connection to the arm housing or ground lug.

NOTICE!
The metal junction box and mounting surface must be capable of supporting a maximum load of 11.33 kg (25 pounds).

9. Skip to *Section 5.1.4 Installing the Camera to the Mounting Plate, page 40*, to continue the installation.

5.1.3 Preparing the Wall Mount for an Outdoor Installation

The following instructions detail the surface preparations and the steps to install the Wall Mount for an outdoor application.

1. Determine a secure location for the wall mount (supplied separately).

NOTICE!
The fasteners and mounting surface must be capable of supporting a maximum load of 11.33 kg (25 pounds).

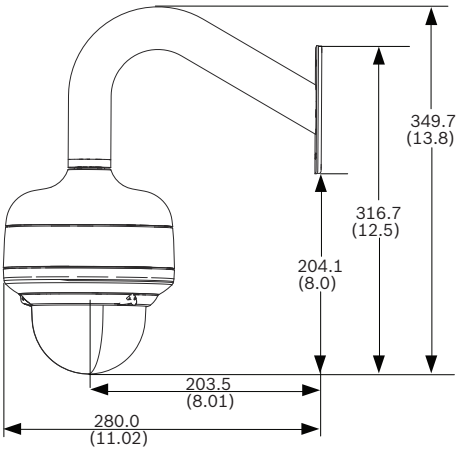
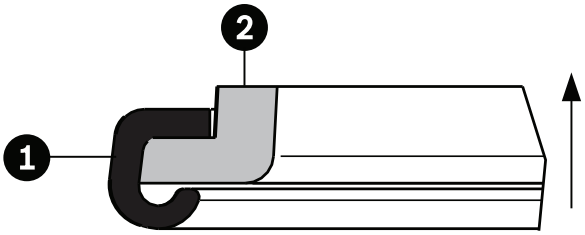


Figure 5.4 Wall Mount Dimensions

2. Use the four (4) holes at the end of the Wall Mount as a template to mark the position where the holes should be drilled to secure the mount.
3. Drill the four (4) holes in the installation location, screws not supplied. Use a minimum screw length of 10 mm (.39 in.).
4. Drill a fifth hole (maximum of 20 mm) in the center of the four-hole pattern used to mount the arm.
5. Ensure that the gasket is attached to the retaining ring. If the gasket and the retaining ring are separate:
   a. Locate the flat side of the gasket and the recessed side of the retaining ring.
   b. Thread the flat side of the gasket (item 1, below) onto the recessed side of the retaining ring (item 2). The illustration below shows a cross-section of the gasket on the retaining ring.



CAUTION!
You must ensure that the gasket is attached to the retaining ring as shown above to ensure an environmentally tight seal.

6. Attach the mounting cap to the arm. Using the AutoDome Easy II Outdoor Installation Kit, apply the following O-ring and the retaining ring to the locations specified below:

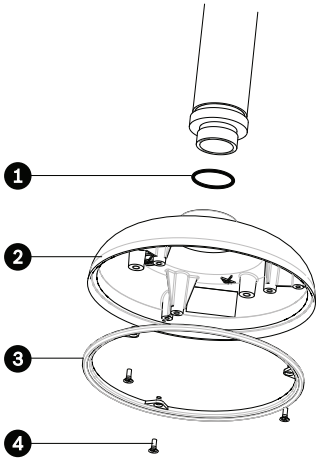


Figure 5.5 O-ring and retaining ring for outdoor installation

1	O-ring; 21.82 mm I.D. by Ø3.00 mm
2	Retaining ring with gasket
3	M3 – .5 x 6 Phillips flat head machine screws

   a. Thread the 21.82 mm I.D. by Ø3.00 mm O-ring (item 1, above) onto the lower arm threads.
   b. Secure the retaining ring gasket (item 2, above) to the dome cap with the three (3) M3 – .5 x 6 Phillips flat head machine screws. Ensure that the side of the retaining ring with the counter-sunk screw holes is facing you.
   c. Attach the dome cap to the arm mount.
7. Feed the wires through the hole in the surface, through the wall mount flat gasket (item 1, *Figure 5.6*) and then through the arm.

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

8. Place the Wall Mount flat gasket (item 1, below), between the surface and Wall Mount; then secure the mount using four (4) appropriate user-provided fasteners such as Moly or Toggle bolts. The flat gasket is supplied with the AutoDome Easy II Outdoor Camera.

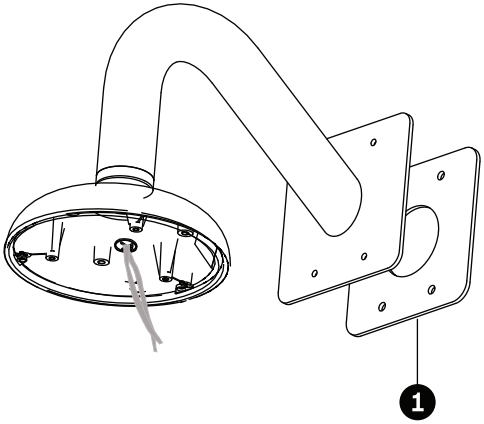


Figure 5.6 Secure arm to wall with flat gasket

9. Skip to *Section 5.1.4 Installing the Camera to the Mounting Plate, page 40*, to continue the installation.

5.1.4 Installing the Camera to the Mounting Plate

To install the camera to the mounting plate, do the following:

1. Attach the mounting plate (supplied with dome) to the dome mounting cap with the three (3) screws supplied.

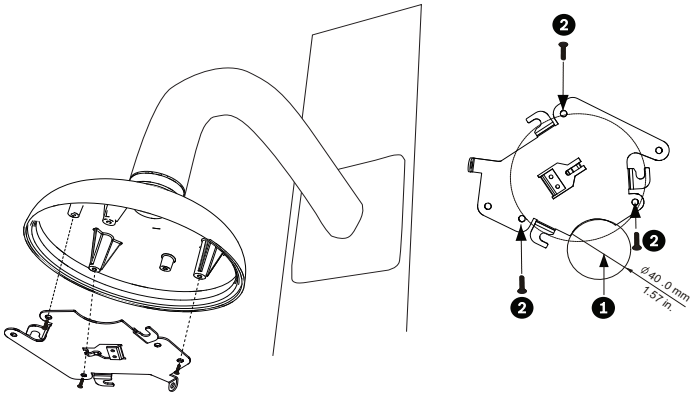


Figure 5.7 Attach Mounting Plate to Dome Cap

1	Cable Hole (40 mm maximum; Crescent Shape
2	Mounting Screws for Dome Cap

2. Route wires on side of mounting plate with crescent shaped cut-out (Ref. #2 *Figure 5.7*).
3. Attach grounding wire from unit to the mounting cap (see *Figure 5.9*).
4. Attach user supplied ground to junction box.
5. Connect the mating connectors with the flying leads to the user supplied wiring (see the *Section 8 Preparing the Wiring, page 63* for wiring information).

6. Unlock the single safety locking screw on the base of the unit using the user-supplied Allen wrench.

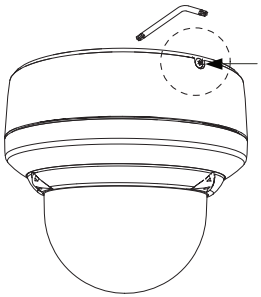


Figure 5.8 Unlock Safety Locking Screw

7. Plug the matching connectors from the camera into the mating connectors from the ceiling.

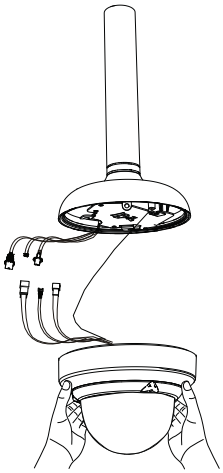


Figure 5.9 Connect Cables

8. Align wires on side of mounting plate with crescent shaped cut-out.

9. Attach the camera to the mounting plate by inserting the vertical tab into the recessed slot on the top of the camera dome to the right of the safety locking screw.

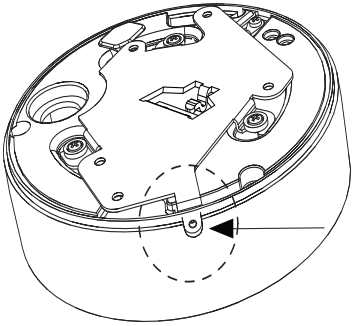


Figure 5.10 Safety Locking Screw

10. Rotate the camera approximately 15 degrees to the right and lock firmly into place, as shown in the next illustration. Note: Do not loosen brass mounting buttons.

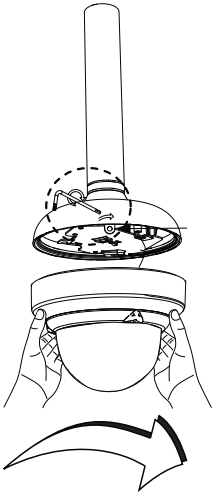
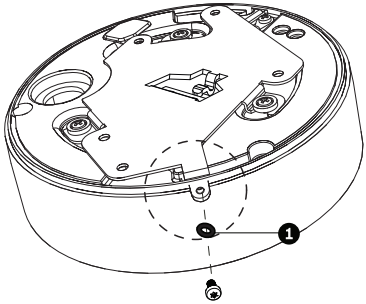


Figure 5.11 Attach Dome to Mounting Plate

11. **Outdoor Installation**: Thread the 2.89 mm I.D. by Ø1.78 mm O-ring (item 1, below) onto the Safety Screw.



12. Secure the safety locking screw with the user supplied locking torx wrench (T-10).
13. Pull excess wire back into the mount tube.
14. Confirm that the housing is electrically grounded.

6 Installing a Recessed Mount

6.1 Description

This chapter details how to recess mount the AutoDome Easy II. The AutoDome Easy II is also suitable for surface (*Section 4 Installing a Surface Mount, page 22*), wall (*Section 5 Installing a Wall Mount, page 33*), and pipe mounting (*Section 7 Installing a Pipe Mount, page 52*). For specific directions on mounting the unit, see the manual that came with your mount.

NOTICE!

The image sensors in modern CCD cameras are highly sensitive and require special care for proper performance and extended lifetime. Follow the guidelines for optimum results with your camera:

- Do not expose to direct sunlight or bright spotlights in operating and nonoperating conditions.
- Avoid bright lights in the field of view of the camera. Bright lights cause a “smearing” effect, which is visible as white lines above and below the highlight. Prolonged exposure to bright lights may cause bleaching of the sensor's color filters. This will be visible as colored spots in the picture and is irreversible.

6.1.1 Additional Requirements

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- Appropriate tool for cutting a hole in drywall or ceiling tile (if applicable)
- 4 in. x 4 in. junction box (optional)
- T-10 Torx wrench
- LTC 9349MK mounting kit (optional)

6.1.2 Preparing the Ceiling for Installation

To mount to a recess mount, do the following:

1. Determine a secure location for the recessed mount (supplied separately).

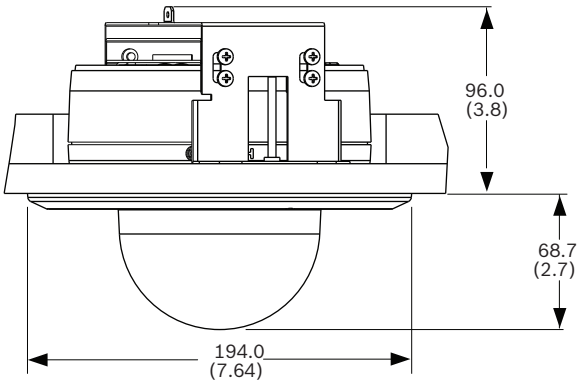
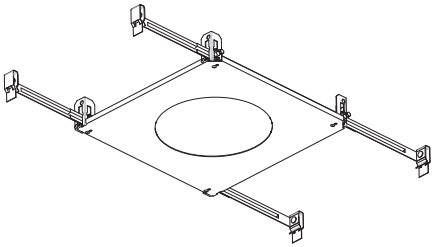


Figure 6.1 Recess Mount Dimensions

2. Drill or cut a 7 in. hole with a tolerance of +/- 1/8 in. (177.8 mm +/- 2.2 mm).
3. Optional: if installing the AutoDome Easy II to a suspended ceiling tile or any other surface where additional support is required, the LTC 9349MK mounting kit is recommended (supplied separately). See the instruction book supplied with the mounting bracket for installation instructions.



4. Align holes of mounting plate (supplied with dome) with mounting bracket and attach with screws. Ensure that both the crescent shape of the mounting plate and the crescent shape of the mounting bracket are aligned.

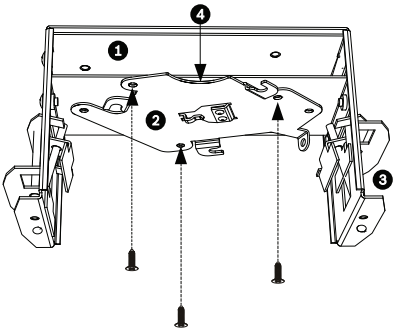


Figure 6.2 Attach Mounting Plate to Mounting Bracket

1	Mounting Bracket
2	Mounting Plate
3	Clamping Plate
4	Crescent Shape

5. Ensure clamping plates are angled inward by pushing up and into the two slots. Bracket with plate should be in the lower position for AutoDome Easy II analog models.

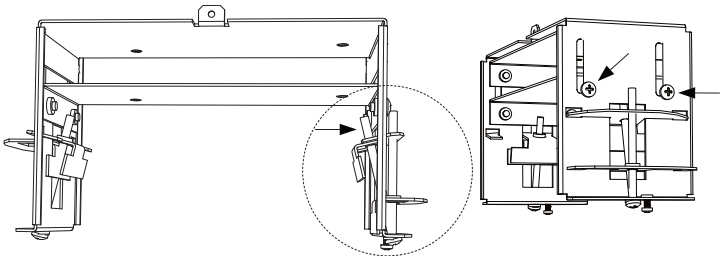
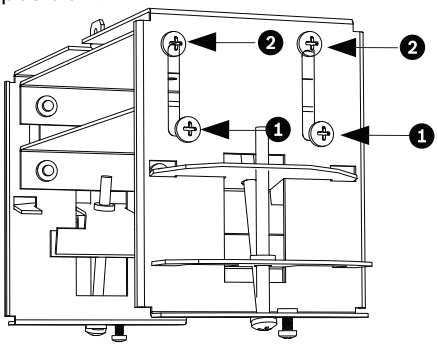


Figure 6.3 Adjust Mounting Clamps

6. **For AutoDome Easy II IP models**: Adjust the clamping plate so that the bracket with plate is in the upper position.



   a. Loosen the two screws (position 1) on each side of the clamping plate.
   b. Move the screws to the upper position (position 2) and tighten.

7. Insert mount through the hole and into the ceiling. Slide clamps out and down so that the drywall is clamped in between the clamps and the bracket flange (41.7 mm (1.64 in.) maximum ceiling thickness and 12.7 mm (0.50 in.) minimum ceiling thickness).
8. Tighten both clamps to the ceiling using supplied screws and a #2 Phillips screwdriver.

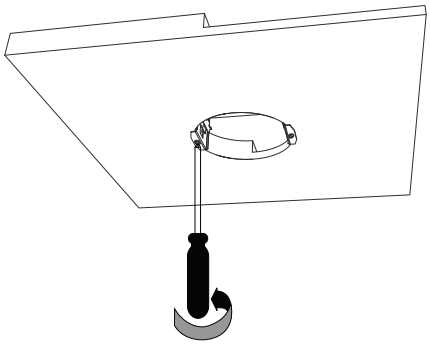


Figure 6.4 Tighten Mounting Clamps

NOTICE!

Over torquing the ceiling clamps can damage the clamp or ceiling. Only tighten the clamp until it contacts the ceiling and you start to feel some resistance. If using a power screwdriver, set the torque level to the lowest setting.

6.1.3 Installing the Camera to the Mounting Plate

To install the base to a surface or suspended ceiling using the supplied mounting plate, do the following:

1. Use supplied T-10 key to loosen (do not completely remove) the three (3) screws on dome bubble. Remove trim ring and set aside.
2. Re-tighten screws.
3. Route wires on side of mounting plate with crescent shaped cut-out (Ref. #4 Figure 1.2).

CAUTION!

All wires for installation applications must be routed through a grounded conduit.

4. Attach grounding wire from unit to the mounting bracket.
5. Attach user supplied ground to junction box.
6. Connect the mating connectors with the flying leads to the user supplied wiring (see the *Section 8 Preparing the Wiring, page 63* for wiring information).
7. Remove the single safety locking screw on the base of the unit using the user-supplied Allen wrench.

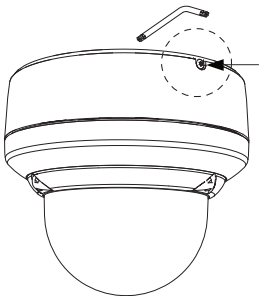


Figure 6.5 Unlock Safety Locking Screw

8. Plug the matching connectors from the camera into the mating connectors from the ceiling.

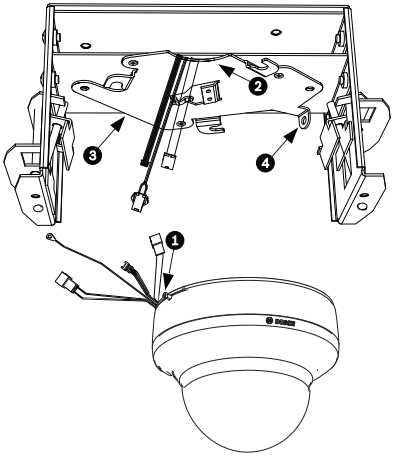


Figure 6.6 Match Connectors

1	Locking Screw
2	Crescent Shape
3	Mounting Plate
4	Vertical Tab

9. Align wires on side of mounting plate with crescent shaped cut-out.
10. Attach the camera to the mounting plate by inserting the vertical tab into the recessed slot on the top of the camera dome to the right of the safety locking screw.

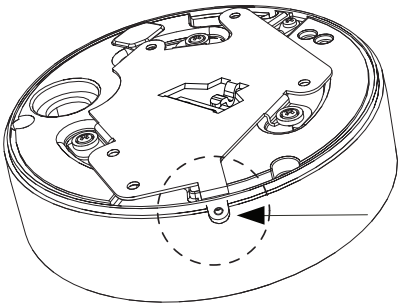


Figure 6.7 Attach Safety Locking Screw

11. Rotate the camera approximately 15 degrees to the right and lock firmly into place, as shown in the next illustration. Note: Do not loosen brass mounting buttons.

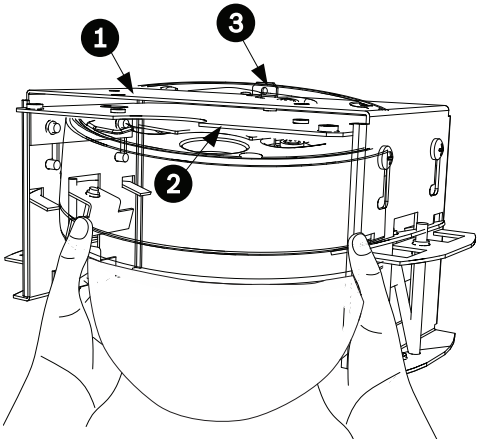


Figure 6.8 Attach Dome to Mounting Plate

1	Recess Mounting Bracket
2	Mounting Plate
3	Mounting Bracket Tether Point

12. Ensure unit is centered.

NOTICE!
The recessed mounting bracket is provided with a an additional safety tether point. To prevent injury, attach a safety wire from a secure anchor point above the ceiling to this tether point.

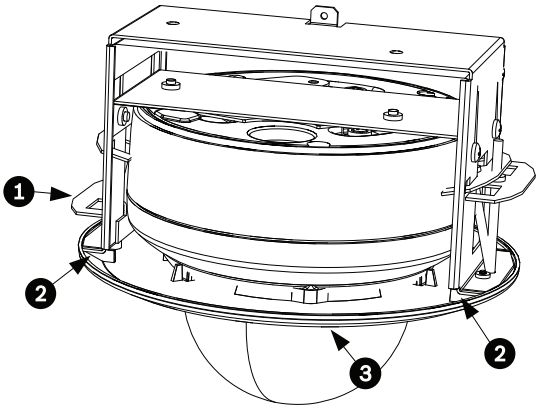


Figure 6.9 Align Trim Ring

1	Clamp
2	Stand-offs
3	Trim Ring

13. Align trim ring so screws align with off center holes.
    Note: The two (2) sets of raised stand-offs on each side of the trim ring align with the locking clamps.
14. Use supplied T-10 wrench to secure the trim ring's two (2) safety locking screws to the mounting bracket.
15. Snap trim ring into place. Ensure snaps are secure by attempting to lightly turn unit. Note: Unit should not turn.

7 Installing a Pipe Mount

7.1 Description

This chapter details how to mount the AutoDome Easy II to a pipe. The AutoDome Easy II is also suitable for surface (*Section 4 Installing a Surface Mount, page 22*), wall (*Section 5 Installing a Wall Mount, page 33*), and recess mounting (*Section 6 Installing a Recessed Mount, page 44*). For specific directions on mounting the unit, see the manual that came with your mount.

For an outdoor installation you must obtain the gaskets and O-rings supplied with an AutoDome Easy II Outdoor Camera to ensure a water-tight environment inside the unit and to maintain an IP Environmental Protection Rating.

NOTICE!

The image sensors in modern CCD cameras are highly sensitive and require special care for proper performance and extended lifetime. Follow the guidelines for optimum results with your camera:

- Do not expose to direct sunlight or bright spotlights in operating and nonoperating conditions.
- Avoid bright lights in the field of view of the camera. Bright lights cause a “smearing” effect, which is visible as white lines above and below the highlight. Prolonged exposure to bright lights may cause bleaching of the sensor's color filters. This will be visible as colored spots in the picture and is irreversible.

7.1.1 Tools/Supplies Required

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- Appropriate tool for cutting a hole in drywall or ceiling tile (if applicable)
- Ground Lug (outdoor use only)
- T-10 Torx wrench
- AutoDome Easy II Camera, required for an outdoor installation

7.1.2 Preparing the Ceiling for Installation

The following instructions detail the preparation necessary to prepare the surface and the steps to install a pipe mount. Certain steps contain additional information for outdoor installations.

1. Determine a secure hard surface location for the ceiling pipe mount (supplied separately).

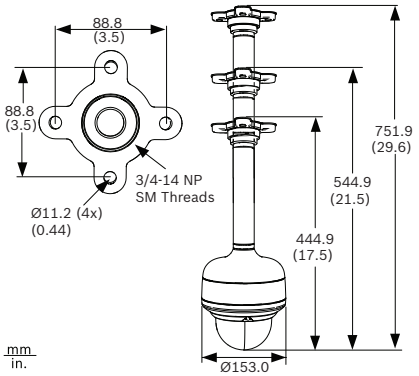


Figure 7.1 Pipe Mount Dimensions

2. Use the four (4) holes in the flange as a template to mark the position where the holes should be drilled to secure the mount.

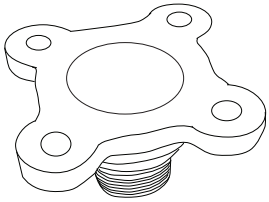


Figure 7.2 Mark Flange Holes

3. Drill the four (4) holes in the installation location, screws not supplied, use a minimum screw length of 10 mm (.39 in.).

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

4. Drill a fifth hole (maximum of 20 mm) in the center of the four-hole pattern used to mount the flange. Use this hole to feed the wires through the mount.
5. Fit the flange (supplied) to the pipe.
   Note: Select the pipe length of 200 mm (7.9 in.), 300 mm (11.8 in.), or combine the two (2) pipes with the integral coupler for 505 mm (20 in.).
   Outdoor Installation: Apply the following O-rings (supplied with the AutoDome Easy II Outdoor Camera) to the locations specified below:

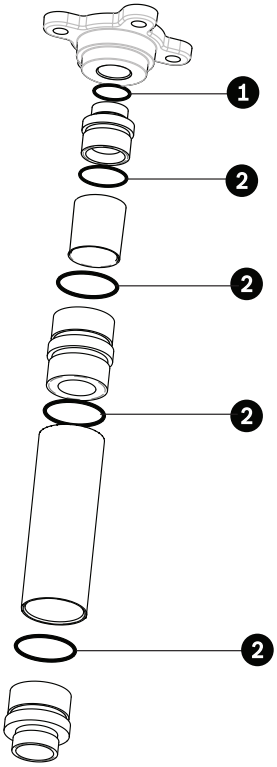


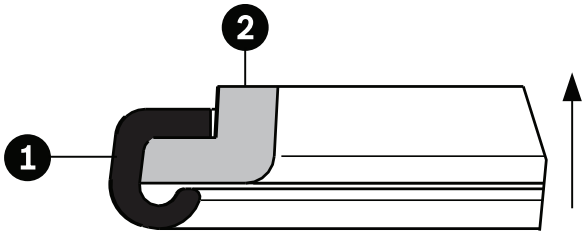
Figure 7.3 Location of O-rings for an outdoor installation

1	O-ring; 21.82 mm I.D. by Ø3.00 mm
2	O-ring; 29.74 mm I.D. by Ø3.00 mm

a. Thread a 21.82 mm I.D. by Ø3.00 mm O-ring (item 1, above) between the flange threads and the upper coupler threads.

b. Thread a 29.74 mm I.D. by Ø3.00 mm O-ring (item 2, above) between any interface between a pipe and a coupler.

6. **Outdoor Installation**: Ensure that the gasket is attached to the retaining ring. If the gasket and the retaining ring are separate:
   a. Locate the flat side of the gasket and the recessed side of the retaining ring.
   b. Thread the flat side of the gasket (item 1, below) onto the recessed side of the retaining ring (item 2). The illustration below shows a cross-section of the gasket on the retaining ring.



CAUTION!
You must ensure that the gasket is attached to the retaining ring as shown above to ensure an environmentally tight seal.

7. Fit the dome cap to the bottom of the pipe.
   Outdoor Installation: Apply the following O-ring and the retaining ring (supplied with the AutoDome Easy II Outdoor Camera) to the locations specified below:

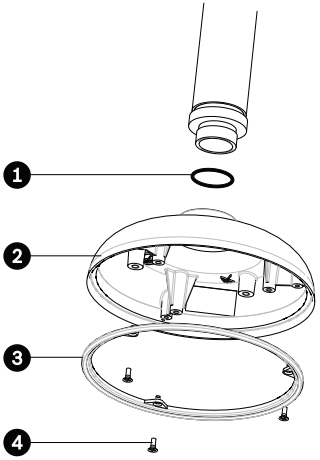


Figure 7.4 O-ring and retaining ring for outdoor installation

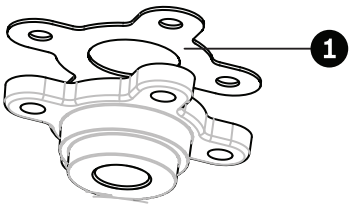
1	O-ring; 21.82 mm I.D. by Ø3.00 mm
2	Dome Cap
3	Retaining ring with gasket
4	M3 – .5 x 6 Phillips flat head machine screws

a. Thread the 21.82 mm I.D. by Ø3.00 mm O-ring (item 1, above) onto the lower pipe threads.

b. Secure the retaining ring gasket (item 2, above) to the dome cap with the three (3) M3 – .5 x 6 Phillips flat head machine screws. Ensure that the side of the retaining ring with the counter-sunk screw holes is facing you.

8. Secure the flange using four (4) appropriate user-provided fasteners such as Moly or Toggle bolts.

   Outdoor Installation: Place the flat gasket (item 1, below) between the flange and the surface before securing.



NOTICE!
The fasteners and mounting surface must be capable of supporting a maximum load of 11.33 kg (25 pounds).

9. Pull the wires from the pipe, starting at the flange end.

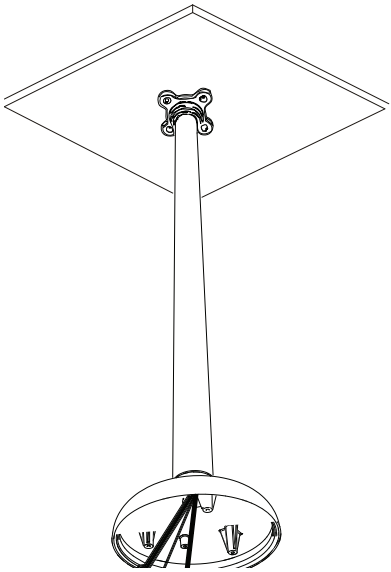


Figure 7.5 Attach Pendant Pipe Mount to Ceiling

CAUTION!
Select a rigid mounting location to prevent excessive vibration to the AutoDome Easy II Camera.

10. Attach user supplied ground lug.

11. Align holes of mounting plate (supplied with dome) with dome mounting cap and attach with the three (3) screws supplied (Figure 1.7).

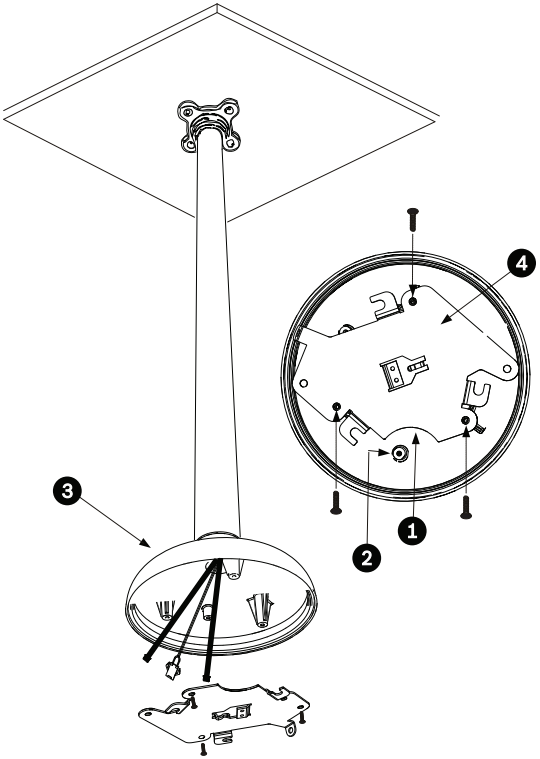


Figure 7.6 Attach Mounting Plate to Dome Cap

1	Crescent Shape
2	Ground Lug
3	Dome Cap
4	Mounting Plate

7.1.3 Installing the Camera to the Mounting Plate

To install the camera to a ceiling mount using the supplied mounting plate, do the following:

1. Route wires on side of mounting plate with crescent shaped cut-out.
2. Attach grounding wire from unit to mounting cap.
3. Attach user supplied ground to junction box.
4. Connect the mating connectors with the flying leads to the user supplied wiring (see the *Section 8 Preparing the Wiring, page 63* for wiring information).
5. Unlock the single safety locking screw on the base of the unit using the user-supplied Allen wrench.

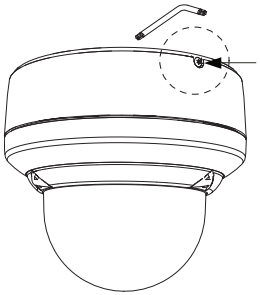


Figure 7.7 Unlock Safety Locking Screw

6. Plug the matching connectors from the camera into the mating connectors from the ceiling.
7. Align wires on side of mounting plate with crescent shaped cut-out.

8. Attach the camera to the mounting plate by inserting the vertical tab into the recessed slot on the top of the camera dome to the right of the safety locking screw.

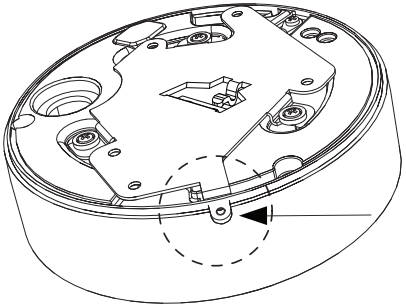


Figure 7.8 Safety locking screw location

9. Rotate the camera approximately 15 degrees to the right and lock firmly into place, as shown in the next illustration. Note: Do not loosen brass mounting buttons.

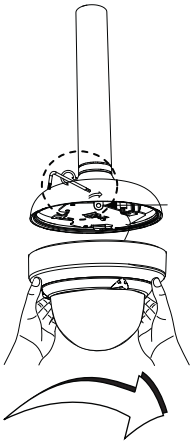
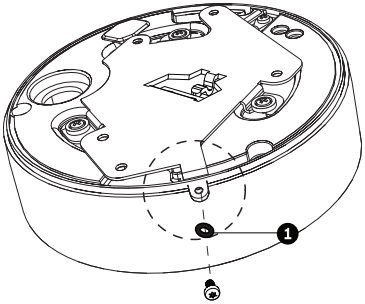


Figure 7.9 Attach Dome to Mounting Plate

10. **Outdoor Installation**: Thread the 2.89 mm I.D. by Ø1.78 mm O-ring (item 1, below) onto the Safety Screw.



11. Secure the safety locking screw with the user supplied locking torx wrench (T-10).
12. Pull excess wire back into the mount tube.
13. Confirm that the housing is electrically grounded.

8 Preparing the Wiring

The wiring requirements for the various AutoDome Easy II models differ slightly. There are four (4) types of wires: control, video, power, and alarm, and each model has different wiring requirements. Each section provides the specifications for the recommended wire.

CAUTION!
Installation should only be performed by qualified service personnel in accordance with the National Electrical Code or applicable local codes.

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

8.1 Power

The recommended power cable is a 2-conductor, 14-18 gage cable, depending on the distance.

	VA / Watts	14 AWG (2.5 mm)	16 AWG (1.5 mm)	18 AWG (1.0 mm)
Camera, Indoor models				
24 VAC to AutoDome Easy II	18 / 10	632 ft (193 m)	398 ft (121 m)	250 ft (76 m)
12 VDC to AutoDome Easy II	10 W	285 ft (87 m)	179 ft (55 m)	112 ft (34 m)
Camera and Heater, Outdoor models only				
24 VAC to AutoDome Easy II	18 / 10	632 ft (193 m)	398 ft (121 m)	250 ft (76 m)
24 VAC to Heater	25 / 25	455 ft (139 m)	287 ft (67 m)	180 ft (55 m)

Table 8.1 Max. Wire Distances from Power Supply to AutoDome Easy II

8.2 Connecting the Power

The AutoDome Easy II IP is available as an indoor or as an outdoor model. Power to the camera in all indoor models is supplied via a single power connector or via a Power over Ethernet (PoE, IEEE 802.3af) connection using the existing CAT 5E Ethernet cable.
The outdoor models contain two 24 VAC isolated power connectors, one for the camera (red and black wires) and one for the heater (white/red and white/black wires).

NOTICE!
Use certified / Listed Class 2 power supply transformer only.

Determining Power Connections
The table below summarizes the necessary power connections for indoor and outdoor IP models. Use the table to identify the necessary connections and for direction to the proper section.

Model	Connection	Refer to
IP		
Indoor	24 VAC	*Section 8.2.1 Power Connections to Indoor Cameras, page 65*
	PoE to camera	*Section 8.3 Ethernet Connection (IP models), page 67*
Outdoor	24 VAC	*Section 8.2.2 Power Connections to Outdoor Cameras, page 66*
	24 VAC to heater	*Section 8.2.3 Power Connections to Heater (all outdoor models), page 67*

8.2.1 Power Connections to Indoor Cameras

WARNING!

The indoor IP camera models can accept power from the 24 VAC power input or from the Ethernet input. Ensure that the camera receives power from only one source.
Refer to *Section 8.3 Ethernet Connection (IP models), page 67*, for more information about connecting Power over Ethernet.

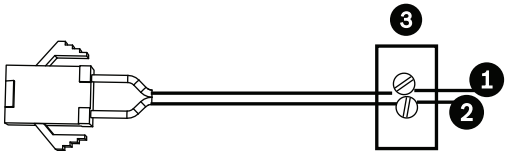


Figure 8.1 Power Cable

Ref. #	Wire	Color
1	24 VAC	Red
2	24 VAC	Black
3	User supplied Power Supply	n/a

NOTICE!

The camera unit accepts 24 VAC 1.2 A power only. Do not connect 120 V or 230 V to this camera.

To connect the power to indoor models:

1. Locate the cable assembly with a three (3) pin mating connector on one end and the red and black flying leads on the other end.
2. Connect one lead of the 24 VAC power source to the black wire.
3. Connect the other lead of the 24 VAC power source to the red wire.
4. Connect the green earth ground cable to a suitable grounded conduit.

8.2.2 Power Connections to Outdoor Cameras

NOTICE! The AutoDome Easy II IP outdoor camera cannot be powered via Power over Ethernet. You must supply a 24 VAC power supply to the camera.

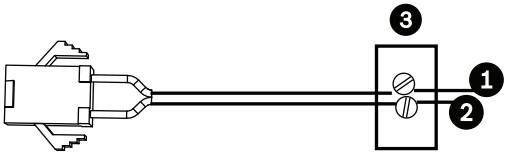


Figure 8.2 Power Cable

Ref. #	Wire	Color
1	24 VAC	Red
2	24 VAC	Black
3	User supplied Power Supply	n/a

WARNING!
The camera unit accepts 24 VAC, 1.2 A power only. Do not connect 120 V or 230 V to this camera.

To connect the power to outdoor models:

1. Locate the cable assembly with a three (3) pin mating connector on one end and the red and black flying leads on the other end.
2. Connect one lead of the 24 VAC power source to the black wire.
3. Connect the other lead of the 24 VAC power source to the red wire.
4. Connect the green earth ground cable to a suitable grounded conduit.

8.2.3 Power Connections to Heater (all outdoor models)

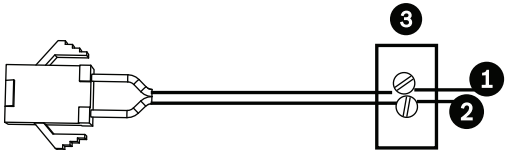


Figure 8.3 Power Cable

Ref. #	Wire	Color
1	24 VAC	White/Red
2	24 VAC	White/Black
3	User supplied Power Supply	n/a

WARNING!
The heater unit accepts 24 VAC, 2 A power only. Do not connect 120 V or 230 V to this heater.

To connect the power to outdoor heaters:

1. Locate the cable assembly with a three (3) pin mating connector on one end and the white/red and white/black flying leads on the other end.
2. Connect one lead of the ground or 24 VAC power source to the white/black wire.
3. Connect one lead of the 24 VAC power source to the white/red wire.

8.3 Ethernet Connection (IP models)

The AutoDome Easy II IP connects to a 10 Base-T/100 Base-TX network either directly or via a hub. Both video and control are transmitted over a standard TCP/IP network using the built-in Web server. In addition, power can be supplied to indoor IP camera models via the Ethernet cable compliant with the Power-over-Ethernet (IEEE 802.3af) standard.
Refer to *Section 11 Using the AutoDome Easy II IP, page 74*, for instructions on configuring an IP environment.

CAUTION!
Ethernet connections must be made to non-exposed (indoor) networks only.

WARNING!
The indoor camera models can accept power from the 24 VAC power input or from the Ethernet input. Ensure that the camera receives power from only one source.

Cable Type	CAT-5E or CAT 6 Ethernet
Maximum Distance	100 m (328 ft)
Bandwidth	10 Base-T/100 Base-TX
PoE (indoor models only)	IEEE 802.3af standard
Terminal Connector	RJ45

9 Alarms and Relay Connections

9.1 Alarm Input

The AutoDome Easy II provides two alarm inputs. Each input can be activated by dry contact devices such as pressure pads, passive infrared detectors, door contacts, and similar devices. The AutoDome Easy II comes with the following alarm in/out cable.

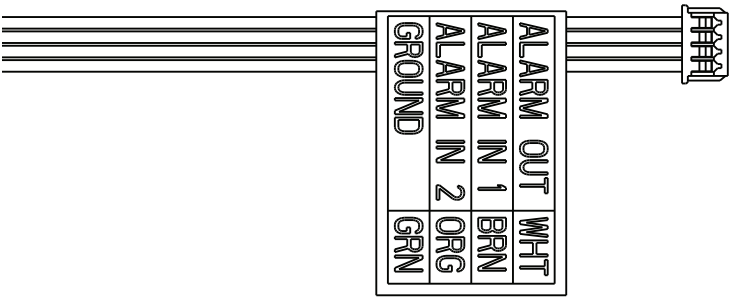


Figure 9.1 Four-wire Alarm In/Out Cable

Wire Color	Function
White	Alarm Out
Brown	Alarm In 1
Orange	Alarm In 2
Green	Ground

The table below summarizes the size and distance wires.

Wire Size		Maximum Distance	
AWG	mm	feet	meters
22	0.644	500	152.4
18	1.024	800	243.8

Table 9.1 Alarm Wire Guide

You wire alarms either Normally Open (N.O.) or Normally Closed (N.C.), and must program the alarm inputs N.O. (the default) or N.C. through the AutoDome Easy II main menu.

9.2 Connecting Alarms (inputs 1 through 2)

You can configure alarms 1 through 2 as Normally Open (N.O.) or Normally Closed (N.C.) alarms.

9.2.1 Connecting a Normally Open Alarm

1. Connect the alarm to the appropriate input (1 through 2) and ground at the AutoDome Easy II.

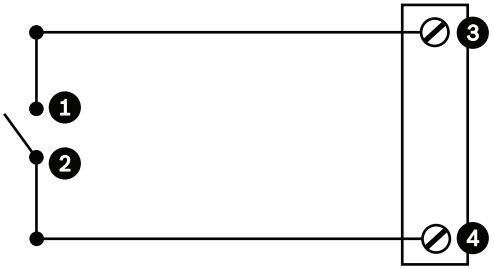


Figure 9.2 N.O. - Normally Open

Ref. #	User Contact	Dome	Color
1	Normally Open	Alarm In 1 or Alarm In 2 (Ref. #3)	Brown IN 1 or Orange IN 2
2	Common	Ground (Ref. #4)	Green

2. From the AutoDome Easy II main menu select Alarm Setup>Inputs Setup, and set Alarm Input # to N.O. See the table below for contact and condition details.

AutoDome Easy II Programmed N.O.	
Circuit	Alarm Indication
Open	Normal
Closed	Alarm

9.2.2 Connecting a Normally Closed Alarm

1. Connect the alarm to the appropriate input (1 through 2) and ground at the AutoDome Easy II.

Figure 9.3 N.C. Normally Closed Connections

Ref. #	User Contact	Dome	Color
1	Normally Closed	Alarm In 1 or Alarm In 2 (Ref. #3)	Brown IN 1 or Orange IN 2
2	Common	Ground (Ref. #4)	Green

2. From the AutoDome Easy II main menu select Alarm Setup>Inputs Setup, and set Alarm Input # to N.C. See the table below for contact and condition details.

AutoDome Easy II Programmed N.C.	
Circuit	Alarm Indication
Open	Alarm
Closed	Normal

9.3 Alarm Outputs

The AutoDome Easy II incorporates one (1) alarm output: a dry contact relay.

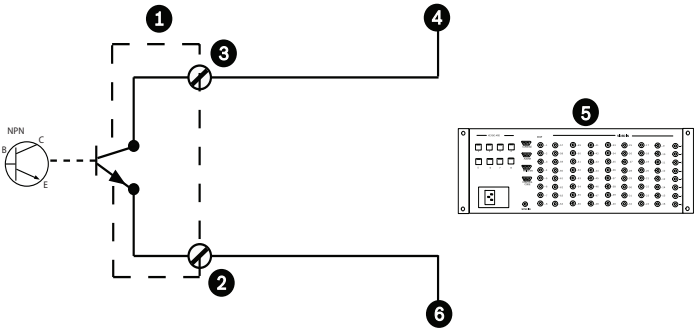


Figure 9.4 N.O. - Normally Open

Ref. #	Description	Color
1	Dome	n/a
2	Normally Open	White
3	Ground	Green
4	Alarm In	n/a
5	User Supplied Device (i.e. Allegiant or DVR)	n/a
6	Ground/Common	n/a

9.3.1 Connecting an Open Collector Output

Output 1 is an open collector. This output must be connected to a positive voltage between 5 and 32 V to complete the circuit, with a maximum voltage rating of 32 VDC @ 150 ma.

1. Connect the appropriate stripped wire to the open collector of the transistor's white wire.
2. Connect the appropriate stripped wire to the ground (GND) connector.

10 Getting Started

Once the installation is complete, the AutoDome Easy II can be programmed. A typical system includes a keyboard, matrix switcher, monitor, and appropriate wiring connections. Please refer to the individual product manuals for complete installation and setup instructions for each of the system components.

10.1 Powering On

When you turn the AutoDome Easy II power on there is a ten (10) second pause before the dome starts its homing phase. During the homing phase the camera pans left and right and tilts up and down. It also adjusts the lens focus. The entire homing phase lasts approximately 20 seconds and ends with a splash screen.

WARNING!
Before powering the dome on, remove the clear protective plastic sheet on top of the bubble.

11 Using the AutoDome Easy II IP

The AutoDome Easy II IP transmits PTZ control commands and images over a TCP/IP network. It also allows users to configure the camera display settings, camera operating settings, and to configure the network parameters.

The IP unit incorporates a network video server in the IP module. The primary function of the server is to encode video and control data for transmission over a TCP/IP network. With its H.264 encoding, it is ideally suited for IP communication and for remote access to digital video recorders and multiplexers. The use of existing networks means that integration with CCTV systems or local networks can be achieved quickly and easily. Video images from a single camera can be simultaneously received on several receivers.

Refer to *Section 18 BVIP Firmware Updates, page 132*, for firmware upgrade instructions.

11.1 Overview of Features

The AutoDome Easy II IP module includes the following functionality:

Function	Description
Video Encoding	The camera uses the H.264 compression standards and ensures that the data rate remains low even with high image quality and can also be adapted to local conditions within wide limits.
Dual Streaming	Encodes dual data streams simultaneously according to two individually customized profiles. This feature creates two (2) data streams per camera that can serve different purposes. For example, one (1) data stream for local recording and one (1) data stream optimized for transmission over the Local Area Network (LAN).
Multicast	Enables simultaneous, real-time transmission to multiple receivers. The network must implement the UDP and IGMP V2 protocols as a prerequisite for Multicasting.
Configuration	Allows configuration for all camera settings from a Web browser on the local network (Intranet) or on the Internet. You can also update the firmware, load device configurations, store configuration settings, and copy these settings from one camera to another.
Snapshots	Allows you to take and store individual video frames as JPEG images from the Web browser interface.
Record	Allows configuration for the recording options of the IP module. You can record video from the Livepage to a hard drive or you can opt to store up to 8 MB of video on the IP module.

11.2 System Requirements

The AutoDome Easy II IP requires specific software and hardware to allow a user to view live images and to configure camera settings over a TCP/IP network. These requirements are:

- A computer with the Microsoft Windows XP or Vista operating system, network access, and the Microsoft Internet Explorer Web browser version 7.0 or later, or
- A computer with the Microsoft Windows XP or Vista operating system, network access, and reception software such as the Bosch VIDOS software or the Bosch Divar XF, or
- A compatible hardware decoder from Bosch Security Systems as a receiver and a connected video monitor.

If you choose to use a computer running Microsoft Internet Explorer or any of the Bosch software, the computer must conform to the following minimum requirements:

- Processor: 1.8 GHz Pentium IV
- RAM: 256 MB
- Video system: 128 MB video memory, 1024x768 display with a minimum of 16-bit color
- Network interface: 100-BaseT
- Microsoft Internet Explorer, version 7.0 or higher
- You must install the following software (available on the Bosch Security Systems, Inc. Web site at www.boschsecurity.com)
- DirectX 9.0c
- Java Virtual Machine
- MPEG ActiveX utility
- .Net 2.0
- VideoSDK

NOTICE!
Ensure the graphics card is set to 16-bit or 32-bit color. If you need further assistance, contact your PC system administrator.

11.3 Connecting the AutoDome Easy II IP to the PC

1. Install the AutoDome Easy II IP according to the instructions in this manual.
2. Connect an Ethernet cable from the AutoDome Easy II IP RJ45 connector to a dedicated network switch to bypass the Local Area Network (LAN).
3. Connect the dedicated network switch to the RJ45 connector on the PC (see option A below).

NOTICE!
The AutoDome Easy II IP can also be connected directly to a PC using an Ethernet crossover cable with RJ45 connectors (see option B below).

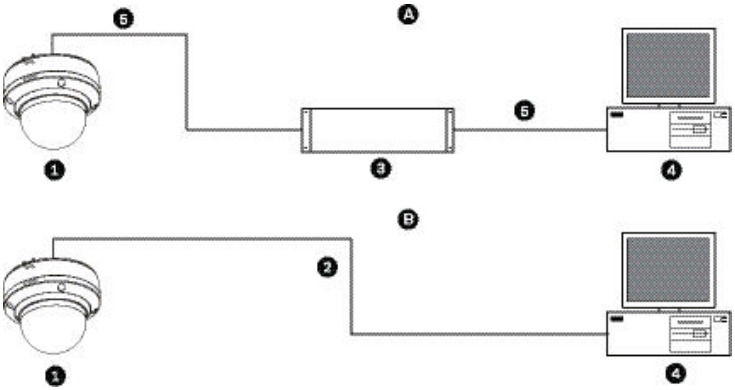


Figure 11.1 AutoDome Easy II IP System Configuration

1	AutoDome Easy II IP
2	IP Connection
3	Network Switch
4	Computer

11.4 Configuring the AutoDome Easy II IP Camera

To operate the camera in your network you must assign it a valid network IP address. The default IP address is 192.168.0.1, but you may have to change this address if it conflicts with another device on your network. Refer to *Section 12.3 Basic Mode: Network, page 89* for more information.

To properly configure the camera for your network, you need the following information:

- Unit IP address: An identifier for the camera on a TCP/IP network. For example, 140.10.2.110 is a valid syntax for an IP address.
- Subnet mask: A mask used to determine what subnet an IP address belongs to.
- Gateway IP address: A node on a network that serves as an entrance to another network.
- Port: An endpoint to a logical connection in TCP/IP and UDP networks. The port number identifies the use of the port for use through a firewall connection.

NOTICE!
Ensure that the network parameters of your cameras are available before you begin configuration.

The AutoDome Easy II IP defaults are as follows:

- IP Address: 192.168.0.1
- Subnet Mask: 255.255.255.0
- Gateway IP Address: 0.0.0.0

The following sections provide instructions about installing the software necessary to view images over an IP connection, configuring the IP network settings and accessing the AutoDome Easy II IP images from a Web browser.

11.5 The LIVEPAGE

Once the connection is established, the Web browser displays the **LIVEPAGE**. It shows the live video image on the right of the browser window. Depending on the configuration, various text overlays may be visible on the live video image.
Other information may be shown next to live video image on the **LIVEPAGE.** The display depends on the settings on the **Livepage Configuration** page (see the AutoDome Easy II IP online help).

Maximum Number of Connections
If you do not connect, the unit may have reached its maximum number of connections. Depending on the unit and network configuration, each AutoDome Easy II IP can have up to 25 Web browser connections or up to 50 connections via VIDOS or Bosch Video Management System.

Protected
If the AutoDome Easy II IP is password protected against unauthorized access, the Web browser displays a corresponding message and prompts you to enter the password when you attempt to access protected areas.

NOTICE!
An AutoDome Easy II IP offers the option to limit the extent of access using various authorization levels (see the AutoDome Easy II IP online help).

1. Enter the user name and associated password in the corresponding text fields.
2. Click **OK**. If the password is entered correctly, the Web browser displays the page that was called up.

Protected Network
If a RADIUS server is employed in the network for managing access rights (802.1x authentication), the AutoDome Easy II IP must be configured accordingly, otherwise no communication is possible.

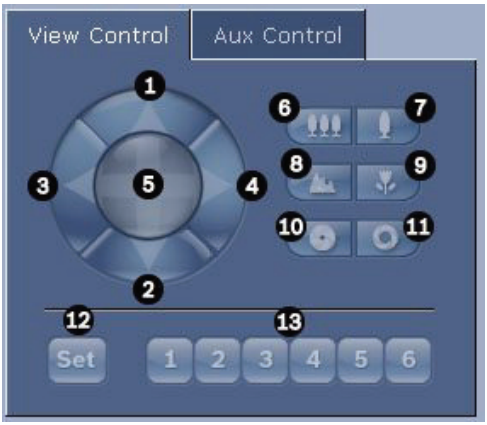
Image Selection

You can view the image of the camera in different displays.

▶ Click one of the tabs **Stream 1**, **Stream 2**, or **M-JPEG** below the video image to toggle between the different displays of the camera image.

View Control

The View Control tab allows you to control camera functions (pan, tilt, zoom, focus, and iris), navigate through on-screen menus and to view preset shots.



Ref.#	Description	Ref.#	Description
1	Tilts the camera up	8	Focus far[2]
2	Tilts the camera down	9	Focus near[2]
3	Pans the camera to the left	10	Iris close[2]
4	Pans the camera to the right	11	Iris open[2]
5	Pans and tilts the camera in all directions	12	Sets the position for corresponding pre-sets 1 – 6
6	Zoom out[1]	13	Moves the camera to pre-set shot numbers 1, 2, 3, 4, 5, and 6
7	Zoom in[1]		

1. This function is also accessible by using the mouse scroll wheel while in the Live video frame.

2. This button is also used as the "Enter" button to select menu items from the AUX tab.

1. To control a peripheral, click the appropriate controls.
2. Move the mouse cursor over the video image. Additional options for controlling peripherals are displayed with the mouse cursor.
3. To manually pan throughout the image area, move your cursor over any part of the live video. The image area displays a directional arrow (↙↗↖↘↑↓→←), then click and hold the right mouse key to pan the camera.

Digital I/O

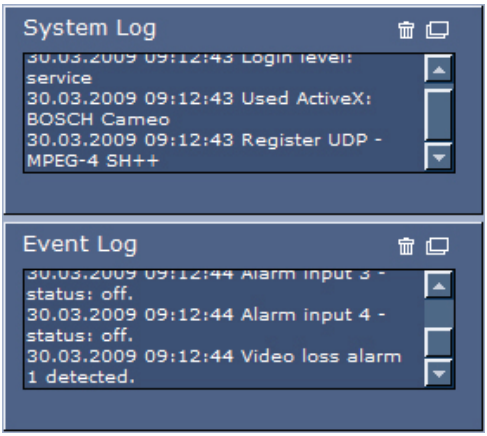
There are three alarm icons: two for alarm rules (rules 1 and 2, respectively) and one for the alarm relay. The alarm icon is for information purposes and indicates the status of an alarm input: when an alarm is triggered, the icon lights up blue. The device's alarm connections and alarm rule settings determine if the alarm icons are activated.

Triggering Relay

External units can be activated using the relay in the device (for example lights or door openers).

▶ To activate this, click the icon for the relay next to the video image. The icon will be red when the relay is activated.

System Log / Event Log



The **System Log** field contains information about the operating status of the AutoDome Easy II IP and the connection. You can save these messages automatically in a file (see the AutoDome Easy II IP online help).
Events such as the triggering or end of alarms are shown in the **Event Log** field. You can save these messages automatically in a file (see the AutoDome Easy II IP online help).

1. If you want to delete the entries, click the delete icon in the top right-hand corner of the relevant field.
2. If you want to view a detailed log, click the icon in the top right-hand corner of the relevant field. A new window will open.

11.5.1 Entering a Keyboard Control Command

The Aux Control tab is used to enter keyboard control commands. These commands are composed of a command number plus the appropriate function key (Show Shot, Set Shot Aux On or Aux Off). A valid combination either issues a command to the camera or displays an on-screen menu.

Aux Control Tab

The Aux Control tab is used to enter pre-programmed keyboard control commands. See *Section 15 Keyboard Commands by Number, page 122*, for a list of all commands. To access the Aux Control tab, navigate to the Livepage and click the Aux Control tab (see *Figure 11.2* below).

NOTICE!

The Aux Control tab can also be used to display the OSD menus. Once the OSD menus are displayed, the virtual joystick in the View Control tab can be used to navigate the menus, and the Focus and Iris buttons can be used to make menu selections.

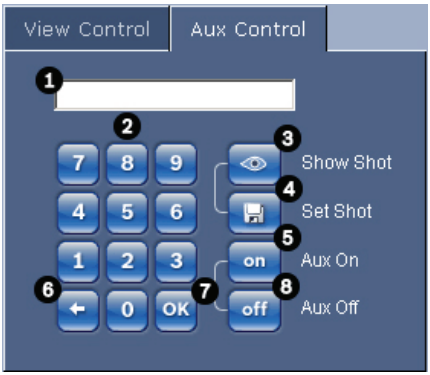


Figure 11.2 Aux Control Tab

1	Command number field
2	Keypad (numbers 0-9)
3	Show a preset shot
4	Set a preset shot
5	Initiates a command
6	Deletes a number in the Command Number field
7	Used to select a menu item
8	Stops a command

To Enter a Keyboard Control Command:

1. Place the cursor in the Command Number field.
2. Click the desired command number via the on-screen keypad.
3. Click either the Aux On or the Aux Off button to initiate or stop the command. See *Section 15 Keyboard Commands by Number, page 122*, for a list of commands.
4. If the command initiates a menu, use the Up/Down arrows on the View Control to navigate the menu. Click the Focus or Iris button to select a menu item.

To Set a Preset Shot:

Preset shots (or scenes) are camera positions that are saved in memory for future use.

1. Move your cursor over the live image and wait for the area to display a directional arrow.
2. Click and hold a mouse button to pan to the desired position you want to save.
3. Click any number combination from 1-99 from the on-screen keypad to identify the scene number.
4. Click the Set Shot button. The image area displays a message that indicates which shot number was saved.

To View a Preset Shot:

1. Click the number of the scene you want to view using the on-screen keypad.
2. Click the Show Shot button.

NOTICE!

For more information about the AutoDome Easy II IP settings and controls, click the **Help on this page?** link to open the AutoDome Easy II IP online help.

11.6 Saving Snapshots

You can save individual images from the video sequence currently shown on the **LIVEPAGE** in JPEG format on your computer's hard drive. The icon for recording single images is only visible if the unit is configured to enable this process.

▶ Click the icon. The image is saved at a resolution of 704 × 576 pixels (4CIF). The storage location depends on the configuration of the .

11.7 Recording Video Sequences

You can save sections of the video sequence currently shown on the **LIVEPAGE** on your computer's hard drive. The icon for recording video sequences is only visible if the unit is configured to enable this process.

1. Click the icon to start recording. The storage location depends on the configuration of the AutoDome Easy II IP. A red dot in the icon indicates that recording is in progress.

2. Click the icon again to stop recording.

NOTICE!
You can play back saved video sequences using the Player from Bosch Security Systems, which can be installed from the product CD supplied.

Image Resolution
Sequences are saved at the resolution that has been preset in the configuration for the encoder (see *Section 12.4 Basic Mode: Encoder Profile, page 90*).

12 Configuring the AutoDome Easy II IP

The **SETTINGS** page provides access to the configuration menu, which contains all the unit's parameters arranged in groups. You can view the current settings by opening one of the configuration screens. You can change the settings by entering new values or by selecting a predefined value from a list field. There are two options for configuring the unit or checking the current settings:

– Basic mode
– Advanced mode

In **Basic Mode** the most important parameters are arranged in seven groups. This allows you to change the basic settings with just a few entries and then put the device into operation.
Advanced Mode is recommended for expert users or system support personnel. You can access all unit parameters in this mode. Settings that affect the fundamental functionality of the unit (such as firmware updates) can only be altered in the advanced mode.
All parameter groups are described in this chapter in the order in which they are listed in the configuration menu, from the top of the screen to the bottom.

CAUTION!
The settings in the advanced mode should only be processed or modified by expert users or system support personnel.

All settings are backed up in the memory so they are not lost even if the power fails.

Navigation

1. Click one of the menu items in the left window margin. The corresponding submenu is displayed.
2. Click one of the entries in the submenu. The Web browser opens the corresponding page.

Making Changes

Each configuration screen shows the current settings. You can change the settings by entering new values or by selecting a predefined value from a list field.

▶ After each change, click **Set** to save the change.

CAUTION!

Save each change with the associated **Set** button.
Clicking the **Set** button saves the settings only in the current field. Changes in any other fields are ignored.

12.1 Basic Mode: Device Access

Camera name

You can give the AutoDome Easy II IP a name to make it easier to identify. The name makes the task of administering multiple units in larger video monitoring systems easier, for example using the VIDOS or Bosch Video Management System programs.
The device name is used for the remote identification of a unit, in the event of an alarm for example. For this reason, enter a name that makes it as easy as possible to quickly identify the location.

CAUTION!

Do not use any special characters, for example **&**, in the name. Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player being unable to play back the recording.

Password

An AutoDome Easy II IP is generally protected by a password to prevent unauthorized access to the unit. You can use different authorization levels to limit access.
The AutoDome Easy II IP operates with three authorization levels: **service**, **user** and **live**.
The highest authorization level is **service**. After entering the correct password, you can access all the functions of the AutoDome Easy II IP and change all configuration settings.

With the **user** authorization level, you can operate the unit and also control cameras, for example, but you cannot change the configuration.
The lowest authorization level is **live**. It can only be used to view the live video image and switch between the different live image displays.
You can define and change a password for each authorization level if you are logged in as **service** or if the unit is not password protected.
Enter the password for the appropriate authorization level here.

NOTICE!
Proper password protection is only guaranteed when all higher authorization levels are also protected with a password. If a **live** password is assigned, for example, a **service** and a **user** password must also be set. When assigning passwords, you should therefore always start from the highest authorization level, **service**, and use different passwords.

Confirm password
In each case, enter the new password a second time to eliminate typing mistakes.

NOTICE!
A new password is only saved when you click the **Set** button. You should therefore click the **Set** button immediately after entering and confirming a password.

12.2 Basic Mode: Date/Time

Device date/Device time/Device time zone
If there are multiple devices operating in your system or network, it is important to synchronize their internal clocks. For example, it is only possible to identify and correctly evaluate simultaneous recordings when all units are operating on the same time. If necessary, you can synchronize the unit with your computer's system settings.

▶ Click the **Sync to PC** button to copy your computer's system time to the AutoDome Easy II IP.

Time server IP address

The AutoDome Easy II IP can receive the time signal from a time server using various time server protocols, and then use it to set the internal clock. The unit polls the time signal automatically once every minute.

▶ Enter the IP address of a time server here.

Time server type

Select the protocol that is supported by the selected time server. Preferably, you should select the **SNTP server** as the protocol. This supports a high level of accuracy and is required for special applications and subsequent function extensions. Select **Time server** for a time server that works with the protocol RFC 868.

12.3 Basic Mode: Network

The settings on this page are used to integrate the AutoDome Easy II IP into an existing network.

Some changes only take effect after the unit is rebooted. In this case, the **Set** button changes to **Set and Reboot**.

1. Make the desired changes.
2. Click the **Set and Reboot** button. The AutoDome Easy II IP is rebooted and the changed settings are activated.

CAUTION!

If you change the IP address, subnet mask or gateway address, the AutoDome Easy II IP is only available under the new addresses after the reboot.

DHCP

If a DHCP server is employed in the network for the dynamic assignment of IP addresses, you can activate acceptance of IP addresses automatically assigned to the AutoDome Easy II IP. Certain applications (VIDOS, Bosch Video Management System, Archive Player, Configuration Manager) use the IP address for the unique assignment of the unit. If you use these applications, the DHCP server must support the fixed assignment between IP address and MAC address, and must be appropriately set up so

that, once an IP address is assigned, it is retained each time the system is rebooted.

IP address
Enter the desired IP address for the AutoDome Easy II IP in this field. The IP address must be valid for the network.

Subnet mask
Enter the appropriate subnet mask for the selected IP address here.

Gateway address
If you want the unit to establish a connection to a remote location in a different subnet, enter the IP address of the gateway here. Otherwise leave the box blank (**0.0.0.0**).

12.4 Basic Mode: Encoder Profile

Default profile
You can select a profile for encoding the video signal.
You can use this to adapt the video data transmission to the operating environment (for example network structure, bandwidth, data load).
Pre-programmed profiles are available, each giving priority to different perspectives. When selecting a profile, details are displayed in the list field.

- **High resolution 1**
  High quality, connections with the highest bandwidth, resolution 704 × 576/480 pixels
- **High resolution 2**
  High quality, connections with high bandwidth, resolution 704 × 576/480 pixels
- **Low bandwidth**
  High resolution, connections with low bandwidth, resolution 704 × 576/480 pixels
- **DSL**
  DSL connections with 500 kbps, resolution 352 × 288/240 pixels

– **ISDN (2B)**
  ISDN connections via two B-channels, resolution 352 × 288/240 pixels
– **ISDN (1B)**
  ISDN connections via one B-channel, resolution 352 × 288/240 pixels
– **MODEM**
  Analog modem connections with 20 kbps, resolution 352 × 288/240 pixels
– **GSM**
  GSM connections with 9,600 baud, resolution 352 × 288/240 pixels

12.5 Basic Mode: Recording

You can record the images from the AutoDome Easy II IP on various local storage media or on an appropriately configured iSCSI system.
Here you can select a storage medium and immediately start the recording.

Storage medium

1. Select the required storage medium from the list.
2. Click the **Start** button to start the recording immediately.

12.6 Basic Mode: System Overview

The data on this page are for information purposes only and cannot be changed. Keep a record of this information in case technical assistance is required.

NOTICE!
You can select all required text on this page with the mouse and copy it to the clipboard with the [Ctrl]+[C] key combination, for example if you want to send it via e-mail.

13 On-Screen Display Menu Navigation

The AutoDome Easy II is programmed through the on-screen display (OSD) menus. To access the **OSD** menus, you must open the main **Setup Menu**.
Menu items marked with an asterisk (*****) are default settings, unless otherwise noted.

Menu Navigation using an AutoDome Easy II IP
To navigate the OSD menus using an AutoDome Easy II IP, access the Aux Control tab on the Livepage to enter the appropriate Aux commands. Once an OSD menu is active, return to the View Control tab to move through the menu and to make selections.

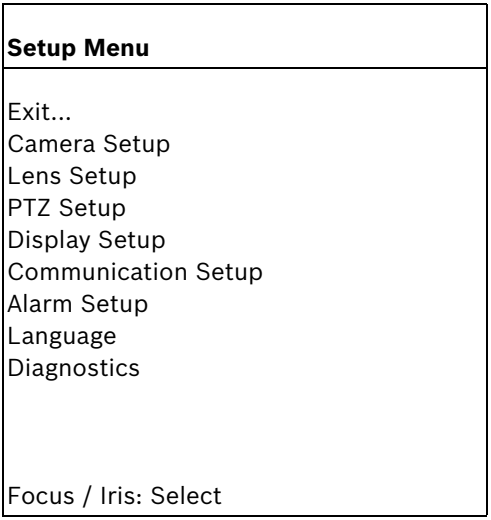
NOTICE!
After a period of 4.5 minutes of inactivity, a menu times-out and exits without warning. Some unsaved settings in the current menu can be lost.

13.1 Setup Menu

The main **Setup Menu** provides access to all programmable AutoDome Easy II settings. It is a locked menu that requires the user to turn off the command lock.

To open the main Setup Menu (locked command):
1. Press **OFF-90-ENTER** to turn off the command lock.
2. Press **ON-46-ENTER** to access the **Main Menu**.
3. Use the joystick to highlight a menu item.
4. Press **Focus/Iris** to open a menu.
5. Follow the on-screen instructions.

NOTICE! The AutoDome Easy II displays only those menus applicable to the AutoDome Easy II Series configuration. Use the joystick to navigate through the menu and the **Focus/Iris** keys to make a selection.
Time Saver Tip: Scrolling through menus can be time consuming; to quickly return to “exit” prompt, just twist the joystick or use the zoom in feature.



Setup Menu Choices:

Menu	Description
Exit	Saves user settings and clears the screen.
Camera Setup	Accesses adjustable camera settings such as: white balance, gain, sharpness, sync, line lock, backlight, shutter, and night mode.
Lens Setup	Accesses adjustable lens settings such as: focus, iris, zoom speed, and digital zoom.
PTZ Setup	Accesses adjustable pan/tilt/zoom (PTZ) settings such as: Autopan, tours, PTZ speed, inactivity period, AutoPivot, and tilt limits.
Display Setup	Accesses adjustable display settings such as: OSD, sector blanking, and masking.
Communication Setup	Accesses communication settings such as: AutoBaud and Bilinx.
Alarm Setup	Accesses the alarm settings such as: inputs, outputs, and rules.
Language	Displays the language.
Diagnostics	Displays the status of diagnostic events.

NOTICE! To select the **Exit Menu** item from anywhere in the current menu, use the Zoom command.

13.2 Camera Setup Menu

The **Camera Setup Menu** provides access to camera settings that can be changed or customized. Menu items marked with an asterisk (*****) are the default settings.

Camera Setup	
Exit...	
* White Bal:	EXT ATW
* Gain Control:	AUTO
* Max Gain Level:	6
* Sharpness	12
* Synch Mode:	Internal
* Line Lock Delay:	0
* Backlight Comp:	OFF
* Shutter Mode:	Auto SensUP
* Shutter:	1/60
* Auto SensUP Max:	15x
* Pre-Comp	1
Restore Defaults...	
* = Factory Setting	
Focus / Iris: Select	

Camera Setup Menu Choices:

Menu	Description	Sub-menu / Description	Default Setting
Exit	Exits the menu.		
White Balance	Maintains proper color reproduction as the color temperature of a scene changes. For example, from daylight to fluorescent lighting.	**Extended ATW**: Adjusts camera color using extended range. **ATW**: Adjusts camera color constantly. **Indoor W.B.**: Optimizes camera color for typical indoor conditions. **Outdoor W.B.**: Optimizes camera color for typical outdoor conditions. **AWB Hold**: Sets the camera's color settings for the current scene.	EXT ATW
Gain Control	Electronically brightens darker scenes which may cause graininess in low light scenes.	**Auto or OFF**	**AUTO**
Max Gain Level	Adjusts the maximum gain level that the gain control adjusts to when set to **AUTO**.	Sliding scale: – (0 to 6) + (1=8db, 2=12db, 3=16db, 4=20db, 5=24db, 6=28db)	**6**
Sharpness	Adjusts the sharpness level of the picture.	Sliding scale: – (0 to 16) +	12

Menu	Description	Sub-menu / Description	Default Setting
Synch Mode	Sets the type of synchronization mode for the camera.	**INTERNAL**: Synchronizes camera to an internal crystal. This choice is recommended if there is noise on the power line. **LINE LOCK**: Synchronizes camera to AC power. This choice eliminates picture roll in multi-camera systems.	INTERNAL
Line Lock Delay	Optimizes the **LINE LOCK** mode to eliminate picture roll in multi-phase power applications.	Sliding scale: – (0º to 359º) +	0º
Backlight Comp	Improves image quality when the background illumination level is high.	**ON or OFF**	**OFF**
Shutter Mode:	Turns Auto SensUP on or off.	**Auto SensUP or OFF**	**Auto SensUP**
Shutter	Adjusts the electronic shutter speed (AES).	Sliding scale: – (1/60 (1/50) at extreme left to 1/10000) +	**1/60 sec.** (NTSC) or **1/50 sec.** (PAL)

Menu	Description	Sub-menu / Description	Default Setting
Auto SensUP Max.	Sets the limit for sensitivity when the shutter speed is set to Auto SensUP.	**NTSC: 15x, 7.5x, 4x, or 2x** **PAL: 50x, 25x, 16.7x, 8.3x, 4x, or 2x**	**15x**
Pre-Comp (not applicable with AutoDome Easy II IP models)	Amplifies the video gain to compensate for long distance cable runs.	Sliding scale: –(1 to 10)+	**1**
Restore Defaults	Restores all default settings for this menu only.	Yes or No	

13.3 Lens Setup

The **Lens Setup Menu** provides access to lens settings that can be changed or customized. Menu items marked with an asterisk (*****) are the default settings.

Lens Setup

```
  Exit...
* Auto Focus:          SPOT
* Auto Iris:           CONSTANT
* Auto Iris Level:     8
* Focus Speed:         2
* Iris Speed:          5
* Max Zoom Speed:      FAST
* Digital Zoom:        OFF
  Restore Defaults


  * = Factory Setting
  Focus / Iris: Select
```

Lens Setup Menu Choices:

Menu	Description	Sub-menu / Description	Default Setting
Exit	Saves and exits the menu.		
Auto Focus	Automatically focuses on the subject in the center of the screen.	**MANUAL**: Auto Focus is inactive; manual focus must be used. **SPOT**: The camera activates Auto Focus after the camera stops movement. Once focused, Auto Focus is inactive until the camera moves again.	**SPOT**
Auto Iris	Automatically adjusts to varying light conditions.	**MANUAL**: Iris must be adjusted manually. **CONSTANT**: Auto Iris is constantly active.	**CONSTANT**
Auto Iris Level	Reduces the camera's iris level for proper exposure.	Sliding scale: – (1 to 15) +	**8**
Focus Speed	Adjusts the manual focus speed.	Sliding scale: – (1 to 8) +	**2**
Iris Speed	Adjusts the manual iris speed.	Sliding scale: – (1 to 10) +	**5**
Max. Zoom Speed	Adjusts the manual zoom speed.	**SLOW, MEDIUM, or FAST**	**FAST**

Menu	Description	Sub-menu / Description	Default Setting
Digital Zoom	Enables digital zoom.	**OFF or ON**	OFF
Restore Defaults	Restores all default settings for this menu.		

13.4 PTZ Setup Menu

The **PTZ Menu** provides access to pan/tilt/zoom settings that can be changed or customized. Menu items marked with an asterisk (*****) are the default settings.

PTZ Setup

	Exit...	
*	Autopan:	30 deg/sec
*	Tour 1 Period:	5 sec
*	PTZ Fixed Speed:	4
*	Inactivity:	OFF
*	Inact. Period	2 min
*	Autopivot:	ON
*	AutoDome Orientation	NORMAL
*	Freeze Frame On Preposition	ON
	Tilt Up Limit	
	Restore Defaults	
	* = Factory Setting	
	Focus / Iris: Select	

PTZ Menu Choices:

Menu	Description	Sub-menu / Description	Default Setting
Exit	Exits the menu.		
AutoPan	Adjusts speed of camera during AutoPan and AutoScan.	Sliding scale: – (1º/sec. to 60º/sec.) +	**30º/sec.**
Tour Period	Changes dwell time between presets during the tour.	Sliding scale: – (3 sec. to 10 min.) +	**5 sec.**
PTZ Fixed Speed	Sets pan and tilt speed when controlled by a fixed speed controller.	Sliding scale: – (1 to 15) +	**4**
Inactivity	Selects the mode that an AutoDome Easy II reverts to after the period of inactivity set in the inactivity period.	**Scene 1**: Returns to Preset 1. **Prev Aux**: Returns to previous activity, such as Aux commands 1, 2, 7, 8, 50, or 52. **OFF**: Remains on the current scene indefinitely.	**OFF**
Inactivity Period	Sets the time period of inactivity before the above action occurs.	Sliding scale: – (3 sec. to 10 min.) +	**2 min.**

Menu	Description	Sub-menu / Description	Default Setting
AutoPivot	Automatically rotates the camera 180º when following a subject traveling directly beneath the camera.	**OFF or ON**	**ON**
AutoDome Easy II Orientation	Automatically rotates the video 180º.	**INVERTED or NORMAL**	**NORMAL**
Freeze Frame On Preposition	Holds a preposition video frame while moving to another preposition.	**OFF or ON**	**ON**
Tilt Up Limit	Moves the camera up, down, left, and right.		
Restore Defaults	Restores the default setting for this menu only.		

13.5 Display Setup Menu

Provides access to display settings that can be changed or customized. Menu items with an ***** are the default settings.

```
Display Setup

  Exit...
* Title OSD:              MOMENTARY
* Camera OSD:            ON
  Display Adjust:
  Sector Blanking...
  Privacy Masking...
  Edit Sector Title
  Edit Scene Title
  Restore Defaults


  * = Factory Setting
  Focus / Iris: Select
```

Display Setup Menu Choices:

Menu	Description	Sub-menu / Description	Default Setting
Exit	Saves and exits the menu.		
Title OSD	Controls how the OSD displays sector or shot titles.	**OFF**: Titles are hidden. **ON**: Titles are displayed continuously. **MOMENTARY**: Titles are displayed for a few seconds then disappear from the screen.	**MOMENTARY**

Menu	Description	Sub-menu / Description	Default Setting
Camera OSD	Controls how the OSD displays camera response information, such as Digital Zoom, Iris open/close, and Focus near/far.	**OFF or ON**	**ON**
Display Adjust	Adjusts the text brightness and vertical position of the on-screen title.	**Exit**: Exits the menu. **Up**: Moves screen title up. **Down**: Moves screen title down. **Brighter**: Brightens the intensity of the on-screen text. **Darker**: Darkens the intensity of the on-screen text.	
Sector Blanking	Allows video blanking of selected sectors. Available sectors are 1 through 8. Follow the on-screen instructions.	**Exit**: Exits the menu. **Sector (1-8**: Press **Focus/Iris** to blank or clear a sector.	

Menu	Description	Sub-menu / Description	Default Setting
Privacy Masking	Allows masking of sensitive areas. Up to 12 privacy masks are available, with a maximum limit of eight (8) to a scene.	**Exit**: Saves and exits menu. **Mask**: 1 to 12 masking areas. Follow the on-screen instructions to set a mask. See **Restore Defaults**: Restores the default settings for this menu only.	
Edit Sector Title	Allows editing existing Sector (Zone) Titles	Select a sector title to access the character palette. See *Section 13.5.1 Specifying a Shot or a Sector Title, page 105*, for instructions.	
Edit Scene Title	Allows editing existing Scene (Shot) Titles	Select a scene title, then choose a menu option: – **Edit Scene Title** to access the character palette. See *Section 13.5.1 Specifying a Shot or a Sector Title, page 105*, for instructions. – **Clear Scene** to delete the selected scene title.	
Restore Defaults	Restores the default setting for this menu only.		

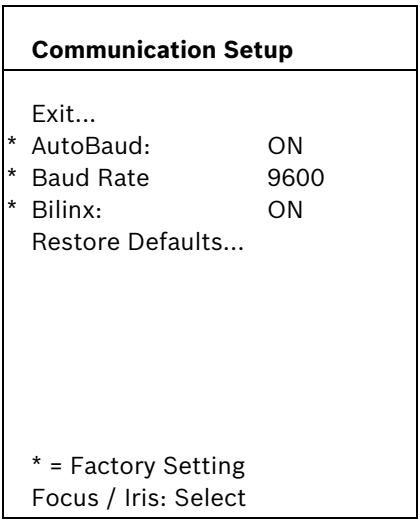
13.5.1 Specifying a Shot or a Sector Title

The AutoDome Easy II provides an alphanumeric character palette used to specify a title for a shot (scene) or for a sector (zone).

1. Select a sector or scene to add or edit a title.
2. Use the joystick to move the cursor to highlight a character.
3. Press Focus/Iris to select the character.
4. Continue to select characters (up to 16) until you have created the title.
5. To clear a character from the title:
   a. Use the joystick to highlight the **Clear OR Position Character** prompt.
   b. Move the joystick left or right until the cursor is below the title character you need to clear.
   c. Press Focus/Iris to clear the character.
   d. Move the joystick up to bring the cursor back into the character palette.
6. To save the title:
   a. Use the joystick to highlight the Exit prompt.
   b. Press Focus/Iris to save the title.

13.6 Communication Setup Menu

The **Communication Setup Menu** provides access to baud rate and Bilinx control settings. Menu items marked with an asterisk (*****) are the default settings.



Communication Setup Menu Choices:

Menu	Description	Sub-menu / Description	Default Setting
Exit	Saves and exits the menu.		
AutoBaud	Turns AutoBaud detection on.	Toggles **ON or OFF**. **ON** automatically accepts baud rates from 2400 to 57600. (Note: If stepping from 2400 to 57600 baud, you must first set the controller to 19200 for AutoBaud to detect the higher baud rate.)	**ON**

Menu	Description	Sub-menu / Description	Default Setting
Baud Rate	Manually sets the baud rate when AutoBaud is set to OFF.	Choices are 2400, 4800, 9600, 19200, 38400, and 57600. Then follow the OSD to confirm the selection.	**9600**
Bilinx	Turns on Bilinx control communication. (Only available when not connected to a Bilinx data interface unit.)	Toggles **ON or OFF**.	ON

13.7 Alarm I/O Setup

The **Alarm Setup Menu** provides access to the **Alarm I/O Setup Menu** to establish the alarm inputs and outputs and to configure alarm rules.

Alarm I/O Setup		**Inputs Setup**		
Exit...		Exit...		
Inputs Setup...		1. Alarm Input 1	N.O.	Physical Inputs 1
Outputs Setup...		2. Alarm Input 2	N.O.	Event Inputs 2-9
Rule Setup...		3. Aux On	99	
Restore Defaults...		4. Aux Off	14	
		5. Shot	Front Door	
		6. Aux Off	78	
		7. NONE		
		8. NONE		
		9. NONE		
Focus / Iris: Select		Focus / Iris: Select Type Right / Left: Select Mode		

Alarm Setup Menu Choices:

Menu	Description	Sub-menu / Description	Default Setting
Exit	Saves and exits the menu.		
Inputs Setup	Defines physical inputs or events and commands that can be used in a rule. There are twelve (12) alarm inputs available.		
Inputs 1	Defines the type of physical input.	**N.O.**: Normally open dry contact. **N.C.**: Normally closed dry contact.	**N.O.**

Outputs Setup Menu

Outputs Setup...		
Exit...		
1. Alarm Output	N.O.	1 Physical Output
2. Shot	Front Door	
3. Shot	2	
4. Shot	99	
5. Aux On	1	
6. Transmit		2-12 Command Outputs
7. OSD		
8. NONE		
9. NONE		
Focus / Iris: Select Type Right / Left: Select Mode		

Outputs Setup Menu Choices

Menu	Description	Sub-menu / Description	Default Setting
Exit	Saves and exits the menu.		
Outputs Setup	Defines physical outputs and keyboard commands for use in a rule.		
Output 1	Defines a physical output.	**N.O.**: Normally open circuit **N.C.**: Normally closed circuit	**N.O.**
Outputs 2-12	Refer to *Section 15 Keyboard Commands by Number, page 122* for available Aux commands.		

13.8 Alarm I/O Rule Setup Menu

The **Rule Setup Menu** shows the status of the rules and lets you add new rules or modify an existing rule. The default setting is **Empty**.

Menu items marked with the * symbol are available only with VG4 Pressure Domes.

NOTICE! You can program a total of twelve rules. You must define the inputs and outputs before you program a rule. See Section 1.7 Alarm I/O Setup, Page 192, to configure alarm inputs and outputs.

Alarm I/O Rule Setup...			**Rule 1**	
Exit...			Exit...	
1. Rule 1	Enabled		Enabled	No
2. Rule 2	Disabled		Input:	
3. Rule 3	Invalid		Physical Input 1	
4. Rule 4	Empty		NONE	
5. Rule 5	Empty		NONE	
6. Rule 6	Empty		NONE	
7. Rule 7	Empty		Output:	
8. Rule 8	Empty		Physical Output 1	Follows
9. Rule 9	Empty		OSD	
	Empty		Aux On 78	Latched
	Empty		NONE	
	Empty			
Focus / Iris: Select			Focus / Iris: Select Type	

Rule Setup Menu Choices

Menu	Description	Sub-menu / Description	Default Setting
Exit	Saves and exits the menu.		
Rule 1-9	Displays the status of a rule on the right side of the menu. There are four (4) possible rule statuses.	**Enabled**: The rule inputs and outputs are properly defined and the rule is turned on. **Disabled**: The rule inputs and outputs are defined but the rule is turned off. **Invalid**: The rule has a missing or invalid input or output. **Empty**: The rule has no inputs or outputs defined.	Empty

Selecting a **Rule** number provides access to its configuration menu. The **Rule # Menu** allows you to configure a rule from previously defined alarm inputs and outputs. Once an alarm is configured with valid inputs and outputs, it can be turned on or off (enabled or disabled) through its configuration menu.

Rule # Choices:

Menu	Description	Sub-menu / Description	Default Setting
Exit	Saves and exits the menu.		
Enabled	Turns the rule on or off after its inputs and outputs have been defined.	**YES** to enable or **NO** to disable	**NO**

Menu	Description	Sub-menu / Description	Default Setting
Input	Toggles through a list of valid inputs set in the **Alarm I/O Setup > Inputs Setup Menu** that define the rule's inputs. A rule can have up to four (4) inputs.	**Alarm Inputs 1 – 2** and any additional inputs which were set in the **Inputs Setup Menu**, including **Aux On/Off (1-99), Shot, and NONE**.	**NONE**
Output	Toggles through a list of valid outputs set in the **Alarm I/O Setup > Outputs Setup Menu** that defines a rule's outputs.	**Alarm Output 1** and any additional outputs set in the **Outputs Setup Menu** including: **Aux On/Off (1-99), Shot, OSD, Transmit, and NONE**. Some outputs, such as **Alarm Output 1 and Aux On/Off** can be set to be active for a specific duration of time as follows: **Seconds**: 1-5, 10, 15, or 30 **Minutes**: 1-5 or 10 **Latched**: The alarm stays active until acknowledged. **Follows**: The alarm follows the alarm rule.	**NONE**

NOTICE! You can include up to four (4) **Input** and **Output** events in a single rule. Each input and output, however, must be true for the alarm's rule to be valid and enabled.

13.9 Language Menu

The **Language Menu** provides access to a list of languages to display the on-screen menus.

Language Menu Choices:

Menu	Description	Default Setting
Exit	Saves and exits the menu.	
Choose a language	Select a language in which the system displays the on-screen menus.	English

13.10 Diagnostics Menu

The Diagnostics menu provides access to a list of diagnostic tools and events.

Diagnostics	
Exit...	
Alarm Status...	
BIST...	
Internal Temp:	83F / 28C
High Temp Events:	0
Highest Temp	90F / 32C
Low Temp Events:	0
Lowest Temp:	73F / 23C
Security Access:	5
CTFID Access:	2
Homing Events:	21
Homing Failed:	0
Loss Home Events	0
Restart Events	0
Power Up Events	18
Video Loss Events	0
Total Time On:	1hr 57 Min
Focus / Iris: Select	

Diagnostic Events

Menu	Description	Sub-menu / Description
Exit	Saves and exits the menu.	
Alarm Status	Enters the Alarm Status menu and displays the real time status of alarm inputs and outputs.	Alarm Inputs 1 to 3, Alarm Output 1

Menu	Description	Sub-menu / Description
BIST	Enters the Perform **Built-in Self Tests** menu. If confirmed, the BIST tests start and the results are displayed.	**YES** to start test. **NO** to exit the menu. Typical results displayed as follows: BIST Exit... Data Flash: PASS FPGA: PASS Bilinx: PASS Homing: PASS Fan Speed: PASS
Internal Temp.	Displays the current dome temperature.	
High Temp Events	Displays the number of times the high temperature threshold is exceeded.	
Highest Temp	Displays the highest temperature reached.	
Low Temp Events	Displays the number of times the low temperature threshold is exceeded.	
Lowest Temp	Displays the lowest temperature reached.	
Security Access	Displays the number of times the locked-command menu is unlocked.	
CTFID Access	Displays the number of times the Configuration Tool is accessed.	
Homing Events	Displays the number of times the AutoDome Easy II was rebooted.	
Homing Failed	Displays the number of times the AutoDome Easy II failed to home properly.	
Loss Home Events:	Displays the number of times the AutoDome Easy II lost the home position.	
Restart Events	Displays the number of restart events.	
Power Up Events	Displays the number of power-up events.	

Menu	Description	Sub-menu / Description
Video Loss Events	Displays the number of time that video was lost.	
Total Time On	Displays the total of time that the video was on.	

14 Common User Commands (unlocked)

This chapter details the commonly used Bosch keyboard setup commands. See *Section 15 Keyboard Commands by Number, page 122*, for a complete list of commands.

14.1 Setting AutoPan Mode

AutoPan mode pans the AutoDome Easy II camera 360º or pans between user defined limits (when programmed). The AutoDome Easy II camera continues to pan until stopped by moving the joystick.

To pan 360º:

1. Press **ON-1-ENTER**.
2. Move the joystick to stop the pan.

To set left and right pan limits:

1. Move the camera to the starting position and press **SET-101-ENTER** to set the left limit.
2. Move the camera to the end position and press **SET-102-ENTER** to set the right limit.

To start AutoPan between limits:

1. Press **ON-2-ENTER**.
2. Move the joystick to stop the pan.

14.2 Setting Preset Shots

Preset shots are saved camera positions. Shots are saved as scenes, therefore, the terms **SHOT** and **SCENE** are used interchangeably.

To set a Shot:

1. Move the camera to the position you want to save.
2. Press **SHOT-#-ENTER** where **#** can be a number from 1 to 99 that identifies the camera position of the scene.

To view a Shot:

▶ Press **SHOT-#-ENTER** where # is the number of the scene position you want to view.

To store or clear a Shot:

1. Press **SET-100-ENTER** to access the **Store/Clear Scene Menu**.
2. Follow the on-screen instructions.

14.3 Configuring Preposition Tours

A **Preposition Tour** automatically moves the camera through a series of preset or saved shots.
The AutoDome Easy II has one (1) standard preset tour, two (2) playback tours, and two (2) auto pan modes. Tour 1 is a standard tour that moves the camera through a series of shots in the sequence of shot number.

To start Preposition Tour:

1. Set a series of preset shots in the order that you want the AutoDome Easy II to cycle through.
2. Press **ON-8-ENTER** to start the tour. The tour then cycles through the series of shots until it is stopped.

To stop a Preposition Tour:

▶ Press **OFF-8-ENTER** or move the joystick to stop either type of tour.

To add or remove scenes to Preposition Tour:

1. Press **SHOT-900-ENTER** to access the **Add/Remove Scenes Menu**.
2. Use the **Focus/Iris** buttons to add or remove the selected scene from the tour.

To change the dwell period of a tour:

1. Press **ON-15-ENTER** to access the **Tour Period Menu**.
2. Follow the on-screen instructions.

14.4 Programming the Inactivity Operation

You can program the AutoDome Easy II to automatically change its operating mode after a period of inactivity.

To access the Inactivity mode (locked command):

1. Press **OFF-90-ENTER** to turn off the command lock.
2. Press **ON-9-ENTER** to access the **Inactivity Mode Menu**.
3. Select one of the following choices:
   - **Return to Scene 1**: Returns the camera position back to the first scene saved in memory.
   - **Recall Previous Aux**: Returns the camera to the previous operating mode, such as a **Preposition Tour**.

14.5 Recorded Tours

The AutoDome Easy II can make up to two (2) recorded tours. A **Recorded Tour** saves and then plays back up to 15 minutes of all manual camera movements made during the recording, including its rate of pan, tilt and zoom speeds and other lens setting changes.

To Record Tour A:

1. Press **ON-100-ENTER** to start recording a tour.
2. Press **OFF-100-ENTER** to stop recording.

To playback Recorded Tour A:

1. Press **ON-50-ENTER** to begin continuous playback.
2. Press **OFF-50-ENTER** or move the joystick to stop playback

To Record Tour B:

1. Press **ON-101-ENTER** to start recording the tour.
2. Press **OFF-101-ENTER** to stop the tour.

To playback Recorded Tour B:

1. Press **ON-52-ENTER** to begin continuous playback.
2. Press **OFF-52-ENTER** or move the joystick to stop playback.

15 Keyboard Commands by Number

Locked	Alarm Rule Output	Function Key	Comm No.	Command	Description
	Y	On/Off	1	Scan 360°	Autopan without limits
	Y	On/Off	2	Autopan	Autopan between limits
Y		On/Off	3	Iris Control	Enters menu (auto, manual)
Y		On/Off	4	Focus Control	Enters menu (spot, auto, manual)
	Y	On/Off	8	Play Pre-position Tour	Activate/Deactivate
Y		On/Off	9	Inactivity Mode	Enters menu (Off, Return to Scene 1, Recall Previous PTZ Command)
Y		On/Off	11	Auto Iris Level adjust	Enters Iris Level Adjustment menu
		On/Off	14	Set Autopan and Scan Speed	Enters speed adjustment slide bar
		On/Off	15	Set Pre-position Tour Period (dwell)	Enters dwell adjustment slide bar
Y	Y	On/Off	18	AutoPivot Enable	Enables/disables AutoPivot
	Y	On/Off	20	Backlight Comp	Backlight Compensation
Y		On/Off	23	Electronic Shutter	Enters Shutter Speed slide bar

Locked	Alarm Rule Output	Function Key	Comm No.	Command	Description
Y		On/Off	35	White Balance Mode	Enters White Balance menu
Y		On	40	Restore Camera Settings	Restores all setting to their original defaults
Y		On/Off	41	Line Lock Phase Adjust	Enters delay adjustment slide bar
Y	Y	On/Off	42	Sync Mode	On–Line Lock Off–Crystal
Y	Y	On/Off	43	Auto Gain Control	AGC–On, Auto, Off
Y		On/Off	44	Sharpness	Enters Sharpness menu
Y		On	46	Advanced Menu	Enters Main Setup menu
		On	47	View Factory Settings	View all menu default settings
	Y	On/Off	50	Playback A, continuous	Activate/Deactivate
	Y	On/Off	51	Playback A, Single	Activate/Deactivate
	Y	On/Off	52	Playback B, Continuous	Activate/Deactivate
	Y	On/Off	53	Playback B, Single	Activate/Deactivate
	Y	On/Off	55*	Command Lock/Unlock	On–lock on Off–lock off
Y	Y	On/Off	60	On Screen Display	On–enable Off–disable

Locked	Alarm Rule Output	Function Key	Comm No.	Command	Description
Y		On	61	Display Adjust	Adjust On-screen Display
		On	62	Pre-position Title menu	Enters Pre-position Title menu. See *Section 13.5.1 Specifying a Shot or a Sector Title, page 105*.
Y		On	63	Zone Title menu	Enters Zone Title menu. See *Section 13.5.1 Specifying a Shot or a Sector Title, page 105*.
		On	64	Alarm Status	Enters Alarm Status menu
		Off	65	Alarm Acknowledge	Acknowledge alarm or deactivate physical outputs
		On	66	Display software version	Displays software version number
Y	Y	On/Off	80	Digital Zoom Lock	Turns digital zoom on and off
		On/Off	81	Alarm Output 1	On–activates output Off–deactivates output
Y	Y	On/Off	86	Sector Blanking	Enters Sector Blanking menu
Y	Y	On/Off	87	Privacy Masking	Enters Privacy Masking menu

Locked	Alarm Rule Output	Function Key	Comm No.	Command	Description
	Y	On/Off	90*	Command Lock/Unlock	On–lock on Off–lock off
Y		On/Off	91	Lens Polarity menu	On–reverse Off–normal
Y		On/Off	92	Lens Polarity menu	On–reverse Off–normal
Y		On/Off	93	Lens Polarity menu	On–reverse Off–normal
		On/Off	100	Record A	Activate/Deactivate
		On/Off	101	Record B	Activate/Deactivate
		On	997	FastAddress, display	Display current address
		On	998	FastAddress, all units	Display and program current address
		On	999	FastAddress, unaddressed domes	Display and program an unaddressed AutoDome Easy II
		Set	“1-99”	Pre-position programming	Set ##–programs a preset view
		Shot	“1-99”	Pre-position recall	Shot ##–recall programmed preset
		Set	100	Pre-position menu	Enters the Pre-position menu
		Set/ Shot	101	Autopan left limit	Set–programs left limit Shot–shows limit
		Set/ Shot	102	Autopan right limit	Set–programs right limit Shot–shows limit

Locked	Alarm Rule Output	Function Key	Comm No.	Command	Description
		Set	110	Factory P/T home position	Set–recalibrate home position
Y		Set	899	Reset ALL	Restores all settings to original defaults and clears all user-programmed settings
		Shot	900	Edit Tour	Enters the Tour add/ remove menu
		Set/ Shot	901-999	Adds/ Removes a preposition shot from Tour 1	Set ###–adds preset Shot ###–removes preset
*Commands perform the same function Aux 55 is required for older Allegiant systems.					

16 Preventive Maintenance

The following preventive maintenance schedule allows detection and correction of minor faults before they become serious and cause equipment failure. Periodically perform the following:

- Inspect all connecting cables for deterioration or other damage.
- Wipe housing with a clean damp cloth.
- Clean the dome/windows with an approved P.C (LEXAN) Cleaner (Novus LEXAN cleaner-plastic polish).
- Verify that all the mounting hardware is secure.

When cleaning the dome bubble heed these warning:

- Do not use alcohol-based solutions to clean the bubble. This will cause the bubble to cloud and over time cause stress aging, which makes the bubble brittle.
- Do not use abrasive or highly alkaline cleaners on the bubble.
- Do not scrape the bubble with razor blades or other sharp instruments.
- Do not use Benzene, Gasoline, Acetone, or Carbon Tetrachloride on the bubble.
- Do not clean bubbles in direct sunlight or on very hot days.

Attaching the Bubble

The AutoDome Easy II is shipped with the bubble secured to the upper housing. Bosch does not recommend removing the bubble from the housing. If a situation requires you to remove the bubble, however, you must use a Torx T-10 driver to secure the three screws on the bubble to the upper housing each with a torque of **5 in.-lbs.**

17 Troubleshooting

If you experience difficulties operating your AutoDome Easy II camera, refer to the following. If the guidelines do not enable you to solve the problem, contact an authorized technician.

Problem	Check
Need to remove trim ring.	Use a slotted screw driver and push the clips outward while gently pulling down on the edge of the trim ring.
Nothing appears on the screen.	Are the power cord and line connection between the camera and monitor made properly?
The image on the screen is dim.	Is the lens dirty? If so, clean the lens with a soft, clean cloth.
The contrast on the screen is too weak.	Adjust the contrast feature of the monitor. Is the camera exposed to strong light? If so, change the camera position.
The image on the screen is flickers.	Does the camera face directly into the sun or fluorescent lighting? If so, reposition camera.
The image on the screen is distorted.	Is the power frequency set properly in sync? If the power frequency is not set correctly, the line lock synchronization mode cannot be used. Set the synchronization mode to INT.NTSC Model power frequency in LL mode: 60 Hz.

17.1 AutoDome Easy II IP Operation and Control

Malfunction	Possible causes	Recommended solution
No connection between the unit and terminal program.	Incorrect cable connections.	Check all cables, plugs, contacts, terminals and connections.
	The computer's serial interface is not connected.	Check the other serial interface.
	Interface parameters do not match.	If necessary select a different interface and make sure that the computer's interface parameters match those of the unit. Try the following standard parameters: 19,200 baud, 8 data bits, no parity, 1 stop bit. Next, disconnect the unit from the power supply and reconnect it again after a few seconds.
No image transmission to remote station.	Camera error.	Connect local monitor to the camera and check the camera function.
	Faulty cable connections.	Check all cables, plugs, contacts and connections.
	Incorrect encoder stream property set for connection to hardware decoder.	Select the **H.264 BP+ (HW decoder)** option on the **Encoder Streams** configuration page.

Malfunction	Possible causes	Recommended solution
No connection established, no image transmission.	The unit's configuration.	Check all configuration parameters.
	Faulty installation.	Check all cables, plugs, contacts and connections.
	Wrong IP address.	Check the IP addresses (terminal program).
	Faulty data transmission within the LAN.	Check the data transmission with **ping**.
	The maximum number of connections has been reached.	Wait until there is a free connection and then call the sender again.
No audio transmission to remote station.	Hardware fault.	Check that all connected audio units are operating correctly.
	Faulty cable connections.	Check all cables, plugs, contacts and connections.
	Incorrect configuration.	Check audio parameters on the **Audio** configuration and **LIVEPAGE Functions** pages.
	The audio voice connection is already in use by another receiver.	Wait until the connection is free and then call the sender again.
The unit does not report an alarm.	Alarm source is not selected.	Select possible alarm sources on the **Alarm Inputs** configuration page.
	No alarm response specified.	Specify the desired alarm response on the **Alarm Connections** configuration page, change the IP address if necessary.

Malfunction	**Possible causes**	**Recommended solution**
Control of cameras or other units is not possible.	The cable connection between the serial interface and the connected unit is not correct.	Check all cable connections and ensure all plugs are properly fitted.
	The interface parameters do not match those of the other unit connected.	Make sure that the settings of all units involved are compatible.
The unit is not operational after a firmware upload.	Power failure during programming by firmware file.	Have the unit checked by Customer Service and replace if necessary.
	Incorrect firmware file.	Enter the IP address of the unit followed by **/main.htm** in your Web browser and repeat the upload.
Placeholder with a red cross instead of the ActiveX components.	JVM not installed on your computer or not activated.	Install Sun JVM from the product CD.
Web browser contains empty fields.	Active proxy server in network.	Create a rule in the local computer's proxy settings to exclude local IP addresses.

18 BVIP Firmware Updates

The AutoDome Easy II IP incorporates a network video server in the IP module. The primary function of the server is to encode video and control data for transmission over a TCP/IP network. The AutoDome Easy II IP also allows an operator to update the BVIP firmware via the TCP/IP network.
The latest BVIP firmware is available on the Bosch Security Systems Web site. To download the service pack from the Web, navigate to www.boschsecurity.us, click the CCTV link, then click Cameras, PTZ and navigate to the product page for the AutoDome Easy II IP. Then click the Software tab on the product page.

18.1 Upgrading the AutoDome Easy II IP

The preferred method to update an AutoDome Easy II IP is through a direct connection between the camera and a PC. This method entails connecting the Ethernet cable from the camera directly to the Ethernet port of a PC.
If the direct-connect method is not practical you can also update the AutoDome Easy II IP through a Local Area Network (LAN). You cannot, however, update the AutoDome Easy II IP through a Wide Area Network (WAN) or via the Internet.

18.2 Beginning the Firmware Update Process

Use this procedure to connect to your AutoDome Easy II IP and to navigate to the Firmware Update page.

1. Launch Internet Explorer and type the IP address for the AutoDome Easy II IP in the Address bar and click Go. Internet Explorer opens the Livepage view.
2. Click the SETTINGS link, located at the top of the page.
3. Click the Service link in the left pane.
4. Click the Maintenance link below the Service link.
5. Click the Search button and navigate to the firmware file (*.fw). Then, click OK.
6. Click the Upload button.

7. Click OK to the warning message to continue the firmware upload, or Cancel to stop the upload.
   The page displays a progress bar as the firmware is uploaded.
   Note: Once the progress bar reaches 100% the system opens the reset page. Allow the reset page to complete its action.
8. Once the reset is complete the upgrade is complete.

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